940.45
C 39

UNIVERSITY OF TORONTO
3 1761 01445538 0

THE AUXILIARY PATROL

E. KEBLE CHATTERTON

Presented to the

UNIVERSITY OF TORONTO
LIBRARY

by the

ONTARIO LEGISLATIVE
LIBRARY

1980

LEGISLATIVE LIBRARY
TORONTO
FEB -6 1924
RECEIVED

LIBRARY
DISCARDED

Uniform with this volume. 12s. 6d. net.

Q-SHIPS & THEIR STORY

By E. KEBLE CHATTERTON

Late Lieutenant-Commander R.N.V.R.

AUTHOR OF 'SAILING SHIPS AND THEIR STORY,' 'DOWN CHANNEL IN THE "VIVETTE,"' ETC.

With Diagrams in the Text and 50 Half-tone Illustrations

SOME OPINIONS OF THE PRESS

MORNING POST.—'Prepared largely from first-hand evidence obtained from participants in the great game. . . . Mr. Chatterton's book should be read by every Briton who is proud of his or her race; while, for the coming generation, it will serve as a guide to virile manhood.'

GLASGOW HERALD.—'It contains more of the glamour of the sea, and of heroic deeds by seafaring men, than any war book yet published.'

WESTERN MORNING NEWS.—'Perhaps the most romantic stories, certainly the most thrilling adventures, of the war.'

SATURDAY REVIEW.—'I have long regarded Mr. E. Keble Chatterton as by far the ablest, most patient and thorough compiler of books about ships who has ever attempted that work. . . . I congratulate him both on having dragged forth this material into the light, and on having made such good use of it.'

BIRMINGHAM POST.—'As fascinating a story of peril and adventure as anything the war disclosed.'

DAILY TELEGRAPH (*in a column leading article*).—'In these pages we have the full and authentic record, set down by a writer who is evidently most at home when he is at sea. And it is an epic which will assuredly be read and re-read in after years, for there is nothing which quite compares with it in the annals of the past.'

ILLUSTRATED SPORTING AND DRAMATIC NEWS.—'Everyone who can read ought to read this book, and those who can't read ought to have it read to them.'

NEWS OF THE WORLD.—'At last the mystery-ships have found their historian. Mr. E. Keble Chatterton, formerly a Lieutenant-Commander in the R.N.V.R., has given us in "Q-Ships and Their Story" one of the most thrilling volumes of the war. It is written in a vivid and picturesque style, and will remain for all time the authoritative book.'

PROSPECTUS ON APPLICATION

SIDGWICK & JACKSON, Ltd., 3 Adam St., London, W.C.2

THE AUXILIARY PATROL

BOOKS ON THE SEA BY E. KEBLE CHATTERTON

HISTORICAL

SAILING SHIPS AND THEIR STORY
SHIPS AND WAYS OF OTHER DAYS
FORE AND AFT: THE STORY OF THE FORE AND AFT RIG
STEAMSHIPS AND THEIR STORY
THE ROMANCE OF THE SHIP
THE STORY OF THE BRITISH NAVY
KING'S CUTTERS AND SMUGGLERS
THE ROMANCE OF PIRACY
THE OLD EAST INDIAMEN
Q-SHIPS AND THEIR STORY
THE MERCANTILE MARINE
SHIP-MODELS
THE AUXILIARY PATROL

CRUISES

DOWN CHANNEL IN THE "VIVETTE"
THROUGH HOLLAND IN THE "VIVETTE"

THE AUXILIARY PATROL

LEGISLATIVE LIBRARY ONTARIO

BY

E. KEBLE CHATTERTON

56319

AUTHOR OF
"SAILING SHIPS AND THEIR STORY," "THE MERCANTILE MARINE,"
"Q-SHIPS AND THEIR STORY," ETC.
LATE LIEUTENANT-COMMANDER, R.N.V.R.

56319

LONDON
SIDGWICK AND JACKSON, LTD.
3, ADAM STREET, ADELPHI, W.C.
1923

LIBR
MAY
1
1981
OF TORONTO
ITY

D
581
C45

PRINTED IN GREAT BRITAIN

PREFACE

I HAVE been asked by so many officers of the old and new Navies to write the following record that no apology is needed for this story of an improvised sea force. Most of those who served in the Auxiliary Patrol were familiar only with their own particular area, and were not aware of the interrelation of strategy and operations throughout the whole sphere. I believe that the following pages may connect up and interpret much that was not appreciated at the time.

The information here put forward, showing the work of the Auxiliary Patrol in its vast extent, has been obtained from many sources. As commanding officer of several of these craft from September, 1914, I began to keep a detailed diary from the first. Thus a large part of the facts is first-hand. In addition, I have been lent diaries, copies of reports, illustrations, and other documents by those who took part in operations in every portion of the war theatre. In other cases I have been able to obtain data from personal conversation with officers, frequently very shortly after the incidents took place, and when they were still fresh in the minds of these actual participants. The result here presented gives, I believe, a true picture of the excellent work performed by an improvised Navy.

I desire to return thanks to the following, who have assisted me in regard to information and illustrations: Commander S. C. Douglas, R.N., Commander Morton Smart, D.S.O., R.N.V.R., Lieut.-Commander P. T. Dean, V.C., R.N.V.R., Lieutenant G. H. P. Muhlhauser, R.N.R., Lieutenant G. A. Mooring Aldridge, R.N.V.R., Mr. H. E. Merton (for the photographs specially taken of Zeebrugge Mole), Messrs. John I. Thornycroft and Co., Ltd., for the photographs of the *Mimi*, the C.M.B., and the *Dorothea*, Messrs. Smith's Dock Company, and Messrs. Cochrane and Sons, Ltd., for illustrations of trawlers and 'Kil' gunboats.

E KEBLE CHATTERTON.

July, 1923.

CONTENTS

CHAPTER PAGE

I. INTRODUCTION - - - - 1

II. HOW IT BEGAN - - - - - 12

III. CARRYING ON - - - - - 28

IV. TRAWLERS AND DRIFTERS - - - - 43

V. THE AUXILIARY PATROL AND THE SUBMARINE BLOCKADE - - - - - 58

VI. AT THE DARDANELLES AND ELSEWHERE - - 76

VII. MINE-SWEEPERS AND MOTOR CRAFT - - - 92

VIII. SUBMARINES AND THE AUXILIARY PATROL - - 107

IX. SMALL SHIPS AND GREAT UNDERTAKINGS - - 123

X. SUBMARINES VERSUS THE AUXILIARY PATROL - - 145

XI. RAIDS IN THE STRAITS - - - - 164

XII. THE GREAT CRISIS - - - - 178

XIII. DESTROYERS OF DRIFTERS - - - - 194

XIV. PATROLS AND CONVOYS - - - - 214

XV. PATROL ADVENTURES - - - - - 229

XVI. THE FRUITS OF SUCCESS - - - - 247

XVII. THE GREAT SURRENDER - - - - 265

XVIII. THE OPERATIONS AGAINST ZEEBRUGGE AND OSTEND - 274

XIX. THE LAST PHASE - - - - - 294

CONTENTS

PAGE
APPENDIX I. THE LAYING OF THE TYNE AND HUMBER MINEFIELDS - - - - 308
,, II. MOTOR-BOATS SENT TO THE FRENCH AND BELGIAN WATERWAYS - - - 311
,, III. THE MOTOR GUNBOAT FLOTILLA IN THE EASTERN MEDITERRANEAN - - 312
,, IV. THE PASSAGE OF M.L.'S FROM PORTSMOUTH TO THE MEDITERRANEAN - - - 321
INDEX - - - - - 325

LIST OF ILLUSTRATIONS

A 'Kil'-Class Gunboat - - - - *Frontispiece*
TO FACE PAGE
A British Floating Mine - - - - - 38
Sinking a Mine by Rifle Fire - - - - 38
Auxiliary Patrol Types - - - - - 62
H.M. Drifter *Daisy VI.* - - - - - 62
The *Arctic Whale* - - - - - - 98
M.L. 181 - - - - - - - 100
Hoisting an M.L. out of the Water - - - 100
Foredeck of an M.L. - - - - - 102
H.M. Patrol Gunboat *Kilfree* - - - - 102
Coastal Motor-Boat - - - - - - 104
M.L. Making a Smoke Screen - - - - 118
Monitor Bombarding Belgian Coast - - - - 118
Armed Motor-Boat *Mimi* - - - - - 132
Mimi on the Road - - - - - - 134
Mimi on the Railway - - - - - 134
Mimi going down the Lualaba - - - - 136
Natives Assisting *Mimi* and *Toutou* over the Shallows - 138
Paddling *Mimi* down the Lualaba - - - - 138
M.L.'s 13-Pounder Gun - - - - - 158
A Dockyard Case - - - - - - 158
Skipper and Crew of a Drifter - - - - 162
M.L. Ashore - - - - - - - 168
Salving the *Nubian* - - - - - - 168
Armed Trawler *John Cormack* - - - - 190
Trawlers round their Mother Ship in Portland Harbour - 214
M.L. 181 going out to meet American Destroyers - - 214
Smoke Screen Apparatus - - - - - 230
Smoke Screen Apparatus - - - - - 230
UC 44 after being Salved - - - - - 234
A Trawler's Crew - - - - - - 238

LEGISLATIVE LIBRARY

TO FACE PAGE
Trawler *Daniel Henley* - - - - - 254
On Fire - - - - - - - 270
Zeebrugge Viaduct at Shore End - - - - 276
Bridge of H.M.S. *Vindictive* - - - - - 276
M.L.'s Making Smoke Screen - - - - 278
M.L. 110 - - - - - - - 278
Lighthouse at Seaward End of Zeebrugge Mole Extension 282
Zeebrugge Mole - - - - - - 282
Guns on Mole Extension - - - - - 284
Zeebrugge Mole - - - - - - 284
M.L. 282 - - - - - - - 286
M.L.'s at Dunkirk - - - - - - 286
Deck of H.M.S. *Vindictive* - - - - - 288
H.M.S. *Vindictive* in Dover Harbour - - - 290
Group of M.L. Officers - - - - - 292
Newly Built *Mersey* Class Trawlers - - - - 300
Dorothea - - - - - - - 312

DIAGRAMS, ETC., IN THE TEXT

FIG. PAGE
1. The Tyne Minefield - - - - - - 29
2. Minefields early in November, 1914 - - - 49
3. Net Drifter Towing Nets - - - - - 65
4. Diagram of Drifter and Nets - - - - 65
5. Plan to illustrate Engagement of May 1, 1915 - 86
6. Plan of White Sea Minefield - - - - 111
7. Belgian Coast Barrage - - - 117
8. Lake Tanganyika - - - - - - 133
9. Plan of Engagement between *Mimi*, *Toutou*, and *Kingani* 140
10. Plan of Dover Straits - - - - - 195
11. Plan of Otranto Straits - - - - - 207
12. Plan of Engagement with U 48, November 24, 1917 - 249
13. Plan of Zeebrugge Harbour - - - - 277
14. Plan illustrating the Concentration against Zeebrugge and Ostend on St. George's Day, 1918 - - 279
15. Plan of Approaches to Zeebrugge and Ostend on St. George's Day, 1918 - - - - 281

THE AUXILIARY PATROL

CHAPTER I

INTRODUCTION

Among the surprises of the Great War, perhaps none was greater than the necessity for, and the dependence on, an improvised Navy. Prior to August, 1914, naval students had thought in terms of battleships, battle-cruisers, cruisers, destroyers, submarines. The Royal Navy was a close-preserve, self-contained, inspired by centuries of tradition, trained up to the highest pitch, sufficient for any job that might be called forth.

Its connection with the rest of the seafaring service was but slight. This was the age of the specialist: between the Fighting Sailor and all others there was an impassable bulkhead which became a permanent fixture as soon as iron, steel, steam, big guns, and armour plate were accepted. A hundred years ago there was very little difference between an East Indiaman and one of His Majesty's corvettes in respect of hulls, guns, discipline, officers, or men. Then, with the progress of machinery and invention, the Merchant Service and the Royal Navy developed on separate lines, until, by the summer of 1914, they were never further apart. It was then that the big international catastrophe brought them together again in the most curious manner.

Two and a half years before the war I remember being the guest of a very distinguished admiral aboard his flagship. I ventured to put forward the opinion that it was a pity the magnificent seamanhood of our fishing fleets could not be organized to assist the Navy in the event of war. The reply was not surprising. These hearty, excellent fishermen were perfect at their own job, but they would be useless in these day of modern fighting-ships, and there would be the inevitable difficulty in regard to discipline. It was a curious coincidence that within three years of that conversation, trawlers manned by fishermen, duly enrolled under the White Ensign, were at sea off this very port. By a further coincidence I found myself a little later destined to be on anti-submarine patrol from the same port, in command of H.M. Drifter, *Daisy VI.*, with a splendid rough crew of Scotch fishermen; a gun mounted for'ard, a hold full of rapid-laying nets for trapping U-boats; bombs, rifles, and other war-like devices. For the next two years I never went in or out of this harbour without thinking of that conversation. It was my privilege to be serving under that very distinguished admiral!

We shall see presently how the great change came. It surprised us all. It was amazing in its unexpected results. To think that untrained men in peace-built craft should become, not a nuisance, but a necessity to the Royal Navy—to be not merely the assistants, but the protectors of the capital ships, was a tremendous mental shock. No one was more astounded than the Admiralty, and for quite a time the daring experiment was regarded with suspicion, at times even with amusement. But a more glorious and successful sea-adventure was never conceived; so that, within two months of the cessation of hostilities, the Admiralty sent to the Auxiliary Patrol their lordships' 'appreciation of the admirable work performed during the war by yachts, whalers, trawlers, drifters, motor-launches and motor-boats,' and went on to remark that 'this new navy of small craft, created by the special needs of the war, has proved the vitality of the British instinct for the sea, and of the adventurous spirit of the "Scowre-sea Navy" in the days of the old sailing ships.'

I think that no evidence can be more eloquent of a nation's seamanhood than the work performed by this improvised new Navy. At the signing of Armistice there were thirty-nine thousand ranks and ratings of the Trawler Reserve alone, of whom a quarter were employed mine-sweeping. We knew during the war that German officers and men of the U-boat service held our Auxiliary Patrol in awe, because they frequently ran away from our improvised craft, and on occasions when these armed yachts, fishing vessels, or motor craft destroyed enemy submarines, the prisoners were only too ready to admit their feelings verbally. It would be easy to adduce plenty of evidence since the war, but two independent German naval officers will suffice.

Admiral Koch, who was formerly Deputy Chief of Staff under the late Admiral von Holtzendorff, officially admitted that the success of the British anti-submarine measures was due to listening-ships and to fast surface-ships which compelled the U-boats to remain so long submerged, and to the convoy system. Now, if we omit the destroyers, and (later on) the P-boats, the motor-launches were the only fast surface-craft which were employed, until the high-powered coastal motor-boats were introduced for service chiefly off the Belgian coast. Over and over again there are instances of steel-built U-boats being frightened by the M.L.'s, and in particular I recollect one such submarine running away for her life. In almost every case the U-boat was immensely superior in armament, and, if she had liked to remain, she could have chosen her own range and shelled the M.L. to destruction; for no motor-launch was ever armed with a bigger gun than a 13-pounder, and those in home waters soon changed for a smaller calibre. On the other hand, the enemy's submarine operating off our coasts usually carried not less than one 4·1 inch, quite apart from a 22-pounder, one machine-gun, and her torpedoes. Yes, those thin, wooden motor-launches, manned chiefly by amateur yachtsmen, were among the most effectual instruments of the anti-submarine campaign, and caused the enemy to become far more terrified than one would have imagined justifiable.

Korvetten-Kapitan Erich Edgar Schulze has similarly paid a tribute to our Auxiliary Patrol which operated off the Belgian coast, and refers to the seaman-like skill with which our net barrage was laid. Commander Schulze refers to the vigilance of our patrols off that littoral during the last year of the war, compelling the Germans to make dashes in varying directions at high speed whenever they essayed to emerge. Let it be remembered, then, that the barrage was laid by drifters, and that motor-launches were chiefly responsible for patrolling this barrage. We shall consider the subject in greater detail in its chronological place.

During the war, yachts, trawlers, drifters, motor-launches, all sank enemy submarines. On first consideration the idea seems ridiculous: the chances seem entirely in favour of the steel submersible vessel with its superior gun-range, its ability to conceal itself, and its professional crews, highly trained in the arts of war. But when even a trawler skipper, or a mercantile marine officer, or a capable yachtsman has at the back of him a righteous cause, and is possessed of courage and determination, the fight becomes far less uneven. And the same fine spirit dominated the Auxiliary Patrol in its mine-sweeping work, for which it will always be gratefully remembered by the deeper-draught ships.

For throughout the war the enemy laid in British home waters over ten thousand mines spread over about thirteen hundred minefields. It was a wonderful proof of the Auxiliary Patrol ships' efficiency when we consider that over four-fifths of these mines were actually swept up during the period of hostilities, and there were only two minefields that remained undiscovered before Armistice. The achievement is remarkable when you recollect the persistence with which enemy submarine mine-layers deposited their cargoes all over the coast of the British Isles, quite apart from such areas as the French coast and the Mediterranean. During one year this activity was maintained at such a pitch that a submarine mine cargo was laid every thirty hours. If we had always known at once the exact locality, it would have left the task still immensely difficult; but often enough the position had to be sought for away from the coast out of sight of land. Sometimes it was in the track of the Grand Fleet on their way down the North Sea, outside the Fleet's very bases, or ready to trap them when they were so far from port that it would be difficult to tow a mined battleship into security. Regularly the shipping lane, along which came steamships with food supplies and munitions of war, was mined; and still more regularly, as a steady, routine job, the trawlers and others went sweeping up the dangerous fields. We lost during the war, in spite of all these precautions, 673,417 tons of British merchant shipping solely from mines, and about another four hundred thousand tons of foreign shipping. But for the Auxiliary Patrol, how many ships of the Grand Fleet and the Mercantile Marine would have been afloat?

From the most modest beginnings of a very few trawlers and yachts, this Auxiliary Patrol force grew until at the time of Armistice there were about five thousand yachts, patrol gunboats, trawlers, whalers, motor-launches, drifters, motor-boats, paddle or screw mine-sweepers and boom-defence vessels. A truly marvellous organization, even if we except a few of the mine-sweepers which were commanded by Royal Naval officers retired or active. Of this enormous new Navy we lost over four hundred yachts, trawlers, whalers, motor-launches and motor-boats, drifters, paddle-sweepers and others. The chief losses were the trawlers sunk by mines; the next largest losses were the drifters sunk by mines and by enemy vessels. It is significant that throughout the war not more than one vessel of the Auxiliary Patrol was captured by the enemy, and she was a slow drifter. Of the motor-launches, seven were sunk by the enemy and one by mine.

Over two thousand officers and men of this new navy perished, but many others were blown up at least once and then carried on with their work in other ships. All round the British Isles; in the White Sea; out of Gibraltar, Malta, Alexandria, Port Said, Mudros, Salonika, and elsewhere in the Mediterranean; off the west and south coasts of Africa; in the waters of North America and the

West Indies; even to the East Indies this organization extended. The history of the world has never contemplated such a maritime force; no national race of seafarers ever combined together to produce such a Navy. It will remain for all time one of the most remarkable incidents in the long story of the sea. And it shows, if it proves nothing else at all, what can be done where there is a nucleus of sailormen flourishing and accustomed to using ships. Without the Grand Fleet the Auxiliary Patrol could not have existed one week: the basis of all naval strength remains in the capital ships. But because of the former's preponderating strength, the High Seas Fleet was compelled to remain inactive with the exception of a very few excursions and raids. That being so, and the two Fleets, so to speak, negativing each other, the war at sea was fought out between small craft; it was mine plus submarine versus mine-sweepers and patrol craft.

The Grand Fleet needed as a screen every destroyer that could be built and manned. At the commencement of war the number of mine-sweepers in the Navy List could be counted on the fingers of your two hands. Thus, there was no other course but to create out of existing vessels such a new Navy as would keep the channels swept of mines and patrolled against submarines while the professional Navy remained concentrated for the big, decisive battle that never came off. But where could this new Navy be found? Not in the liners or tramp steamers or coasters, for they were still required to carry on 'business as usual'; though some of them had to be employed as armed merchant cruisers, transports, fleet auxiliaries, and later on as Q-ships. There remained, therefore, only three classes of craft available: the fishing trawlers and drifters, the private pleasure yachts, and those of the excursion paddle-steamers which had not been commandeered for the purpose of rushing troops across from Southampton to France.

It was because the Grand Fleet 'covered' the High Seas Fleet that our armies were able to get to the scene of battle; it was because of the Grand Fleet's silent but persistent dominance that the great Imperial concentration of troops from overseas was possible, and that raw materials were able to flow into the Mother Country. Even the furthest outpost at sea felt the strength of the Battle Fleet at its back. But conversely neither Grand Fleet nor merchant shipping could have lasted long without light-draught craft to keep the channels swept of mines or to keep the submarine perpetually harassed and unable to lie in wait for our Navy and Marine. Thus the old Navy and the new, and the modern Mercantile Marine, which kept them both from starving, and the armies in the field thrusting the spearhead of the big fighting weapon, were all mutually dependent. One could not exist without the others.

Inter-related, too, were the operations of the Auxiliary Patrol and the enemy's overseas strategy. Korvetten-Kapitan O. Groos, the German official naval historian, has shown that after the American political difficulty, consequent on the torpeding of the *Sussex*, Germany for a time dropped submarine warfare and concentrated on employing in distant oceans those six raiders *Meteor*, *Möwe*, *Seeadler*, *Wolf*, *Greif*, and *Leopard*. For weary weeks of uneventfulness the Auxiliary Patrol was thus occasionally compelled to endure monotony. Officers and men began to wonder why they had not volunteered for service with the Army. And then, without warning, the mine and submarine warfare would begin again. Channels that had been swept twice a day for weeks and months, without revealing anything, would suddenly be discovered to be foul. A merchant ship would be heard on her wireless bleating for help. A submarine would definitely be located in a neighbourhood that had been fruitful with unfounded rumours. Trawlers and yachts would have to be recalled from patrol, the former to increase the mine-sweeping forces, the latter to escort valuable shipping through the dangerous zone. And so the war went on.

Trawler skippers, who had done nothing all their lives except fish, found themselves in positions of the highest responsibility; deckhands who had never so much as fired a rifle became experts with a 12-pounder mounted on the trawler's fo'c'sle. Junior officers out of some big liner found themselves in command of a whole division of trawlers, putting to sea in single line ahead and then separating along the coast. Anything might happen at any moment. Everyone was expectant, nobody certain. The great upheaval in the lives of men and ships had begun.

Thus, in the following chapters, we shall read the story of this new Navy from its beginning to the end. It is to be hoped that never again will the need for its service be required, but if that should arise, let the deeds of the men who left their fishing, their yachting, and their steamship work be held in remembrance. Before the war, the public generally took very little interest in the fisheries, and to-day they exhibit just about as much enthusiasm. Only during the war did this fine race of men receive the attention they unquestionably deserve; for it was they who all the time were the backbone of the Auxiliary Patrol. In the year immediately preceding the war, the number of men and boys in the United Kingdom regularly or occasionally employed in fishing, was less than a hundred thousand. This is not such a very large number for a nation that is dependent on the sea; but at least 49 per cent. of the regular whole-time fishermen were in naval service during the period of hostilities. The very existence of the fishing industry was for the good of the nation; it was the first time that this essential fact was driven home into the mind of the public.

No community of men is more deserving of encouragement. In my history of 'The Mercantile Marine'* I endeavoured to show how the fishing fleets have been the source of wealth by which navies have been founded. It was their ships and men that enabled the British Empire to be founded. In a long and splendid tradition, they have always rendered the finest service to the country. From the earliest times they have been fishing in the North Sea and English Channel. It was the Cinque Ports fishermen who provided crews for the King's service in mediæval times; it was the Devonshire fishermen who went across the Atlantic to catch cod off the Newfoundland Banks and made it possible for the great Elizabethans to have sufficient seafaring knowledge to voyage over oceans. Throughout the Spanish Armada and Anglo-Dutch war periods, right on to the Anglo-French wars, this class of man has been the backbone of the Mercantile Marine and His Majesty's Navy. And this wonderful, historic custom was surpassed by all their great deeds during the years 1914-18.

---

* 'The Mercantile Marine,' by E. Keble Chatterton. London, 1923.

We speak casually of the great brotherhood of the sea, but the picture of fishermen, of mercantile mariners, and yachtsmen working with the professional Navy for four long, trying years, through dark nights and hard winters, is something of which nationally to be proud. The cheery optimism of the hard-case, courageous, resourceful trawlermen sent to look for minefields is surely a great asset to any country. They would hate to be called heroes, and their reports of exciting encounters with the enemy are ludicrously bald. They are true sailormen, who have learnt those lessons which only the sea can teach; and the reader will see for himself whether the fishermen's fights here recorded are not worthy to be placed prominently in our island story.

The following pages, then, are an attempt to tell the story of the great new service which suddenly was called into being, did marvellous things for four years, and then as quickly was disbanded. Unlike those who volunteered for the Army, it retained its own distinctive character, and was never merged into the older institution. Every year those who were officers or men in this new Navy are dying off. It is time that their deeds be put on record whilst it is not too late. The traditions of the sea will always differ in kind from those of the land; and however much you try to alter it, there will ever be a body of men attracted to maritime life who require some standard of perfection for which to aspire. It is hoped that in these chapters they may find some satisfaction.

CHAPTER II

HOW IT BEGAN

It was on the 1st of August, 1914, that the flotilla of mine-sweeping gunboats left Dover bound up the North Sea. They consisted of old-fashioned craft, which had long become obsolete, but were deemed good enough for any clearing of minefields that might be laid in the event of war ; for the official attitude towards mines had yet to receive the rude shock which was presently to come.

But long prior to the war the Admiralty had created a nucleus trawler organization from which was to spring the Auxiliary Patrol. As far back as the year 1907 Admiral Lord Charles Beresford, when Commander-in-Chief of the Channel Fleet, happened to visit Grimsby and observed in harbour a large number of trawlers. He took the trouble to inspect some of them, and put forward the idea that in the event of war Grimsby fishermen, who had been accustomed all their lives to working trawls, would be just the men to use their ships in sweeping for mines.

The outcome of this was that during the next few years the Admiralty evolved a special organization of the Royal Naval Reserve known as the Trawler Section, consisting of fishermen. The first enrolment began in 1911 at Aberdeen and Grimsby, and by the time war broke out there were over eighty trawlers in this organization capable of being turned into mine-sweepers. In addition the Admiralty owned a few trawlers, such as the *Javelin*, *Jasper*, *Janus*, and others, which in peace-time were chiefly used for towing targets. Lord Fisher in 1909 had caused five trawlers to be bought at Grimsby, Fleetwood, and North Shields for experimental work, and a good deal of unostentatious practice went on after the Japanese War in learning all that could be discovered about minefield clearance. And I remember being at sea in 1909 quite close to the sweepers and watching them keenly at work between Weymouth Bay and St. Alban's Head.

During those first four fateful days of August, 1914, the nucleus trawler organization was put into practice; these fishing vessels with their crews were taken up by the Admiralty, put through a certain amount of training, and hurried off to their allotted ports as soon as their mine-sweeping gear was aboard. All this was 'according to plan.' But then came an important event that was to indicate one of the two main features of the destined sea warfare. According to the German Official Naval History, the *Königin Luise* (a small German steamer) was already in the Ems. Her two yellow funnels and her white hull had been given a hurried painting of black, so that she now resembled one of the Hook of Holland steamers that were still running between Harwich and Holland, and would cause no surprise if seen about the latitude of Orfordness.

At 7.30 p.m. on that historic August 4, this Hamburg American Line excursion steamer, which used to run German tourists to seaside resorts, received by wireless the order to proceed at utmost speed towards the Thames and lay her mines as near as possible to the English coast, but nothing north of Lat. 53 N. At 10 p.m. (German time) she put to sea with her cargo of mines on board, armed with a couple of guns, the intention being to mine the East Swin Channel. But the *Königin Luise* was destined never to get so far south. After making for the Terschelling and Haaks Lightships, and keeping the Dutch coast aboard, she was off the Maas Lightship about 8 a.m. (German time), then altered course for the East Anglian coast, and, steaming at sixteen knots, was sighted at 10.40 a.m. in the forenoon of August 5 by H.M.S. *Amphion* with a flotilla of destroyers about thirty miles East of Orfordness. Thereupon Commander Biermann on sighting the British flotilla threw overboard her mines and headed to the southward and then south-east, to get away from British waters. At 11.15 G.M.T. the flotilla began to shell her, and she sent a wireless signal through to the High Seas Fleet that her mines had been laid. By noon the enemy had been sunk, survivors were taken aboard the *Amphion*, but next morning *Amphion* herself foundered on this minefield.

Two interesting points are to be noted in connection with this, the beginning of the enemy minefields. Firstly, the *Königin Luise* did not lay her mines where she thought she did. She knew, of course, that she was somewhere off Orfordness, but actually the place where the mines were found was some twelve miles north of where she imagined was her position. And, secondly, it was a trawler who informed *Amphion* about the suspicious vessel which had been seen throwing things overboard. It is, indeed, a remarkable tribute to the trawlermen, whether still fishing or enrolled under the White Ensign, that some of the most important minefields were revealed by these seafarers. By this means the lives of ships, peaceable and warlike, were saved over and over again.

This first minefield, which became known as the Southwold area, was taken in hand as soon as possible, but the sweeping organization was still nothing more than the mere pre-war nucleus. It was lucky that the Grand Fleet had already steamed northward several days before; it was lucky that only *Amphion* foundered and that *Königin Luise* had been surprised when she was. But the incident suggested vast possibilities: an aggressive mining policy was to be expected. Therefore, trawlers must be taken up wholesale. It is thus from the outbreak of war that the Auxiliary Patrol became so important. The immediate result was that a hundred trawlers were at once requisitioned, and by August 21 had been sent to Lowestoft, which became the chief depot for fitting them out with sweeps and other stores. At the rate of six a day they were got ready for their new work, and Lowestoft became suddenly transformed from a fishing harbour into a naval base.

Meanwhile, half a dozen Admiralty trawlers were hurried up from Dover to sweep a channel shoreward of this minefield, and other trawlers were being taken up along the North Sea coast as far up as the north-east of Scotland. The fishermen had at last come into their grand opportunity: they were indispensable to the Navy and the Mercantile Marine. Those of us who were at sea off this coast during the first few weeks of war will always remember the amazing amount of traffic—colliers, tramps, even topsail schooners—in one never-ending procession bound to and from the North Sea ports. It was just as if no enemy existed the other side of the horizon. Now, it was part of the British Government policy to interfere as little as possible with merchant shipping, and, therefore, the first thing now to be assured was a permanently clear channel from as far north as the Outer Dowsing to the South Goodwins. This meant that even unarmed steam drifters, who a few days ago had been herring fishing, were required to patrol this big area in sections, in order to give immediate information of any other mine-layers who might come across during the dark hours. The autumn would soon be here with its long period of night, and a guaranteed channel must be kept for our traffic.

On that 4th of August the herring fishing was at its height off the north-east English coast, and many hundreds of these steam drifters were at sea in addition to hundreds of steam trawlers, either singly or in fleets. At 8.15 that night the Board of Agriculture and Fisheries were instructed that no fishing vessel was to be allowed to proceed to North Sea fishing grounds, and all vessels at sea were ordered by wireless to return to port by daylight on the following morning. Thus, there was quickly ready in harbour, available for naval service, a large quantity of unemployed ships and men. Suddenly bereft of their normal avocation, they were capable of being used for patrolling or mine-sweeping as soon as stores were on board and the necessary instructions had been given. But it is to be noted that whereas the pre-war arrangements by the Admiralty provided for certain trawler owners agreeing to allow their vessels to be chartered on the outbreak of hostilities, no such mobilization of steam drifters had been contemplated. It was the sudden appearance of minefields and the need of patrols that brought them into the war so early. By the end of the war 1,502 steam drifters, 51 motor drifters, and 1,467 steam trawlers had been requisitioned by the Admiralty.

So far so good. But now came another scare. This was the submarine; and there can be no sort of doubt that its possibilities had been underrated. You will recollect that after the war a German Parliamentary Committee of Inquiry sat in Berlin to consider the causes of Germany's failure, and the official reports are available to the public. At that inquiry Admiral von Capelle, who was Secretary for the Navy during two and a half years, quoted with approbation the article written by a popular English novelist before the war on the chances of a submarine campaign being waged against us by only eight boats. During August Lieutenant-Commander Hersing (whose name we shall refer to again as one of the ablest of the German submarine officers) in U 21 was sent to patrol for ten days across the North Sea, between Stavanger and the Firth of Forth. The object was obvious enough. We know from the German Official History that the ten U-boats, 5, 7, 8, 9, 13, 14, 15, 16, 17, 18, left Heligoland in the early hours of August 6 and swept northwards towards the line Shetlands-Bergen. Exactly three days later H.M.S. *Birmingham* sank one of these—viz., U 15. During this cruise, though nothing of a favourable nature directly resulted, yet it gave great confidence to the U-boat service, because its extent was far greater than anything the German submarines had previously attempted.

The High Seas Fleet was ordered by the Kaiser to remain on the defensive and to operate only with submarines and torpedo craft, but especially the former. Captain Gayer, who was formerly the senior officer of the Third German Submarine

Flotilla, and afterwards co-head in the Submarine Department of the German Admiralty, has stated that at the outbreak of war only U 5 to U 25 were available for active service, and that of these U 5 to U 18 had petrol engines which were not efficient. He says that after the sweep just mentioned had been sent towards the Shetlands-Bergen line, another sweep was made by U 19, 21, 22, and 24 to the line Maas Lightship-Outer Gabbard. This was on August 8-11, and was without result. But Hersing in U 21 was able to bring back information as to the British coast being watched by destroyers and armed trawlers. Indeed, his voyage of sixteen hundred miles was thought to be a record for a submarine, and gave a great impetus to a young service that was anxious to cover itself with distinction while the High Seas Fleet was compelled to remain inactive owing to the Grand Fleet.

It is necessary to stress this point, for it is otherwise impossible to appreciate the German conduct of their naval war, or to understand the heavy responsibility which was thrust on the improvised ships of our Auxiliary Patrol. It was as if the respective main fleets had agreed to stand aside and let the contest be decided by the ambitious underwater craft and the British fishing vessels and yachts, backed up by whatever torpedo craft were available from duties with the Grand Fleet, or at such important points as the Dover Straits.

Now, a very large portion of this successful enterprising spirit which was actuating the German U-boat service was owing to Hersing. His cruises were certainly extraordinarily daring and showed considerable endurance. In other words, they afforded invaluable data from which to deduce the theory that much more could be expected of submarines provided they were multiplied in numbers and built of improved designs.

I remember while serving on the Firth of Forth, after leaving Grimsby early in 1915, the persistent, but unsubstantiated, rumour that a U-boat had penetrated the Forth, even up to the bridge. For a long time this adventure was ridiculed by some, and because it could not be proved it was disbelieved. We now know that it was an absolute occurrence, that the craft was U 21, and that her captain was Hersing. For, at the end of August, 1914, a second cruise was undertaken, and, about 10.30 on the night of September 2, Hersing crept up towards the bridge. Recollect that this was long before the Forth boom defence came into being, and long before it was so efficient as to give the battle-cruiser fleet perfect security. Actually on this night the batteries fired on what was taken to be a periscope, and the battle-cruiser *Invincible*, who happened to be in harbour, sent picket-boats to hunt for the submarine. There were no nets to entangle U 21, and of course the batteries of Inchkeith Island could easily be evaded. Had Hersing shown just a little more daring and not retired, perhaps he might have made a bigger success. But after coming down the Forth once more he sighted H.M.S. *Pathfinder* ten miles S.E. of May Island about 4.30 p.m., torpedoed her, and sank her.

Thus, within the first month of the war, two things were perfectly clear: the High Seas Fleet was remaining dormant; the fight was being waged actively by mine and submarine. Therefore every available seaworthy small craft among trawlers, steam yachts, motor-boats, and drifters was required, not merely against mine-laying, but against U-boats. Nothing succeeds like success, and Hersing's achievement gave even greater encouragement to his own service. On September 20 to 22, U 9, commanded by Lieutenant-Commander Weddigen, was sent from Heligoland to interrupt 'the trooping activity towards Ostend,' and so assist the German Army. Extracts from his war diary have since been published in the public Press, and we can see him early in the morning of September 22, in the vicinity of the Maas Lightship, on his way towards Ostend, when suddenly he sighted the three British cruisers, *Aboukir*, *Cressy*, and *Hogue*. Between 7.30 a.m. and 8.35 a.m. he had torpedoed all three, and then returned home without having accomplished the original purpose of interfering with troop transports: he had used up all his torpedoes.

We all remember the dreadful sensation which this incident caused. Three British cruisers finished in an hour, and the enemy able to get away scot-free! If anything were wanting to emphasize the deadliness of the submarine, here it was. What was to be done? More than ever Admiral Jellicoe required every destroyer as anti-submarine screen to his fleet whenever it put to sea, and the P-boats had not yet come into existence. One distinguished officer then occupying a very high position at the Admiralty, who was courteous enough to lend me his diary of these early days, suggested employing a force of motor-boats armed with light guns to scour the neighbourhood of the ports whence our transports carried troops to France. But by August 11 the whole of the channel from the Outer Dowsing Lightship to the Downs was being patrolled by steam drifters wearing the White Ensign, a mine-swept channel existed as far north as Southwold from the North Foreland, and every day the trawlers were becoming more expert at their new job. But something more was required.

Thus the first consideration must be given to the safety of the Grand Fleet. Therefore a special flotilla of trawlers, each carrying two 3-pounders and armed with explosive anti-submarine sweeps, was fitted out at Lowestoft manned by trawler ratings. These craft were not painted navy grey, but retained their fishing numbers and funnel markings. Naturally enough Admiral Jellicoe was anxious to be sent even yachts and drifters for keeping a complete watch on the approaches to Scapa Flow; for this harbour, too, was still at the mercy of any determined U-boat who might have pushed her way in and wrought disaster among the Grand Fleet. Under the steam yacht *Venetia* a score of armed trawlers fitted out at Lowestoft began patrolling off the Grand Fleet's base. They were lightly armed in all conscience, but it was the best that could be done.

The explosive sweep consisted of a line of guncotton charges towed by an electric cable but kept down to the required depth by a small kite, and was a clumsy affair compared with the highly efficient and simple depth charge which was evolved later. But those were early days, when the enemy had only just begun to learn the strength of his submarines, and we to realize the stiff task that was before us. The mere fact that a certain number of trawlers were keeping swept a long North Sea channel was to give mercantile shipping confidence and some comfort to the destroyers and light cruisers which issued forth from Harwich under Commodore Tyrwhitt. Even a score of armed trawlers off the Scapa base, ready to chase and always searching for submarines, was a great deal better organization than was in existence when the hostilities began.

But now came a further step. What was necessary for Scapa Flow was required for the British Isles as a whole. More and more craft would obviously be essential since the enemy would certainly not confine his mine-layers or his submarines to any one locality. By the 1st of September the number of hired trawlers and drifters had already reached two hundred and fifty, employed chiefly in regard to the mine-sweeping. It was now required to form an organization not for the purpose of mine-sweeping—that was already going ahead—but to utilize small craft against mine-layers and submarines. This organization was composed of so many units, and each unit was to consist of one steam yacht, four trawlers, and four motor-boats. The first places for which this new scheme was devised was Scapa Flow (4 units), Loch Ewe on the west coast of Scotland (4 units), Rosyth (4 units), Humber (2 units), Cromarty (2 units). It was known as the Yacht Patrol, though the motor craft were at present administered under the Royal Naval Motor-Boat Reserve Committee. From September, then, we get a definite attempt to grapple with the submarine problem.

It was small in its beginnings. From September 2 the Admiralty began to take up and arm with 6-pounders or 3-pounders steam yachts as fast as they could be located. Some of them had only just finished their summer cruises, others had not been fitted out since the Riviera season; others, again, had been laid up for quite a long time. But now they were sent to Portsmouth and Devonport to be manned and commissioned as H.M. ships. It is true that already one or two yachts were in employment such as the *Venetia* just mentioned and the *Zarefah* officered by yachtsmen and manned by a crew of

Cambridge rowing men, but these were special craft lent by their owners. The new scheme was for the steam yachts to work inshore and thus enable the torpedo-boats and old-fashioned destroyers to go further out to sea.

The amount of traffic using the swept channel was immense and needed examining. Any ship might be a suspicious mine-layer. At first the yachts were lent free of charge, the Admiralty paying all equipment and running, but at the end of three months, if the vessel were still required, she was to be hired at £1 per ton per month. Harbours and coasts were to be patrolled, and generally it was hoped to render very valuable assistance by means of these auxiliary units to the hard-worked destroyer flotillas. Very speedily the original idea developed, so that besides the S.Y. *Zarefah* based on Lowestoft for special duty looking after the mine-sweeping vessels, there was a unit at Dover, the Tyne, Cromarty, Humber, Shetlands, and Loch Ewe.

In actual practice it was found during that first winter that many of these motor-boats could not keep the sea in bad weather, though the bigger ones of twenty or thirty tons were able to render good service patrolling bays and such exposed areas as the mouth of the Humber. The smaller craft, therefore, were employed for picket - boat work, policing harbours, and carrying despatches. As to the personnel of these yachts and motor craft, the former craft would arrive at Portsmouth or Devonport with either their yachting or scratch crews on board. Six seamen ratings were then put aboard to man the guns, the rest of the crew were obtained from various sources, such as yacht-hands and fishermen and men of the Mercantile Marine. In some cases the owner was allowed to receive a commission and remain in command, but one or two incidents occurred which made this undesirable. Generally speaking, the captain was a retired naval officer, sometimes a mercantile officer; the navigating officer and watch-keepers being selected from those who had volunteered for the Royal Naval Reserve. At first there was a shortage of engineer officers, but at last, with a complete and raw crew, with one gun mounted for'ard and one aft, with the white enamelled hull and fine varnished teak deckhouses all painted a dark grey, they were pushed off to sea. Many of these steam yachts were only single-screwed, extremely unhandy, quite slow, and anything but ideal ships for anti-submarine work. If they fired their guns, the decks became damaged and windows smashed by the concussion; but the great thing was that a beginning had been made to create a huge auxiliary fleet.

It is necessary to recollect that the Admiralty mind at this time was slightly fogged. We shall deal presently with two 'mysteriously' laid minefields. Now, human psychology is such that nothing is so worrying as suspense; and nothing is so conducive to suspense as to find terrible things happening without being able to discover the cause. The discovery of the Tyne and Humber minefields caused a wild scare even in official circles, for the reason that it was not known how or when they were laid. The air was therefore full of wild talk about subtle, disguised, small mine-layers working in conjunction with spies. This terrible bogey of the mysterious mine-layers had a good deal to do with the creation of the auxiliary fleet, but actually every one of these minefields was laid by powerful big ships until the first of the submarines began to do this work in the summer of 1915.

Apart from the nucleus mine-sweeping trawler organization, there was one other pre-war arrangement for what was to become the Auxiliary Patrol. It arose from the desire of yachtsmen to become of use to the Royal Navy in the event of war. But actually this enthusiasm took shape owing to the action of the chief motor-yacht clubs. The Admiralty was approached, a Motor-Boat Reserve Committee was formed under Admiral Sir Frederick S. Inglefield, and this officer reported in November, 1912, that motor-boats would be able to patrol and carry out examination service in estuaries and harbours, detect hostile submarines endeavouring to enter harbour, act as despatch boats, and so on. The net result was that in January, 1914, the Admiralty proposed that there should be a Motor-Boat Reserve affiliated to the Royal Naval Volunteer Reserve. Matters so far progressed that Admiral de Robeck, who was about to end his command as Admiral of Patrols, worked out a scheme for the organization and training of both officers and men of this new reserve. Before the end of July the Admiralty appointed a small committee to draw up a detailed scheme, under Commodore Ballard (the new Admiral of Patrols), and with the advice of officers from the three leading motor-yacht clubs.

And then suddenly arrived the war. The scheme for training could not be proceeded with, but at once owners volunteered themselves and their motor-boats for service. Yachtsmen and motor-boat enthusiasts joined up from all parts of the United Kingdom. At first these craft were used chiefly as despatch boats in connection with the transports which were being sent from Southampton to France. But during September, with the institution of the Yacht Patrol, the more seaworthy motor craft, commanded by yachtsmen who had been given commissions in the Royal Naval Volunteer Reserve, were sent to take their places in the units at Dover, Loch Ewe, the Humber, Tyne, Shetlands, and Cromarty. The ratings were known as motor-boatmen and were selected chiefly from yacht-hands.

These improvised craft flew the White Ensign, were armed with nothing better than service rifles and rockets and revolvers, for their duties were to be the eyes of the patrol flotillas. Painted a dark grey, with a white identification number on the bows, these little craft carried out all sorts of minor duties, patrolling in roadsteads, estuaries, off harbours, examining shipping, controlling traffic, taking out orders to trawlers and seeing that the latter were on station, putting pilots aboard, and so on. Even the best of these boats had been designed for nothing better than summer cruising, so it was not surprising that the first winter knocked them about considerably. A number of Scotch motor fishing boats were also enrolled and commanded by yachtsmen, so that by the middle of November, 1914, there were about one hundred and twenty craft in the Royal Naval Motor-Boat Reserve, and more were to follow.

During those months many of these enthusiastic, newly commissioned, amateur seafarers chafed at the restricted operations which the nature of their boats imposed. Presently some were given commands of steam drifters until the sea-going motor launches were built. At first, frankly, this R.N.M.B.R. was despised by certain naval officers ; but these first few months were really the training period in the game of war. Thus, by the time the new craft were ready, there was in existence a keen, capable corps that could be relied on by the Navy, and eventually won the latter's respect and admiration. Submarine-hunting, mine-sweeping, escorting convoys became their principal work. They were essential and indispensable to the service in which they had been enrolled. We shall see, as we go on, how the motor craft justified themselves during those four long years, working in harmony with the fishermen of the trawlers, relieving the flotillas of their coastal work, and finally earning undying glory off Ostend, Zeebrugge, and elsewhere.

But now we must go back to see how the mine-sweeping trawlers and the drifters were progressing in the North Sea.

CHAPTER III

CARRYING ON

On the night of August 24 the small German cruiser *Albatross* left the Heligoland Bight, proceeded across the North Sea to about the latitude of Newbiggin Point, then turned S.W. and began to lay a number of mines about midnight of August 25-26, in zigzag formation, about thirty miles seaward of the Tyne. Either the enemy was extremely nervous or his dead-reckoning was at fault (as it had been in the case of the *Königin Luise*), for right till the end of the war he fondly imagined this minefield was laid about six miles off the land. The *Albatross* was a 2,200-ton ship with a couple of funnels and two masts and an old-fashioned ram-like bow. Her best speed was 21 knots, and she could carry 400 mines. She was known to every naval student before the war as a genuine mine-layer.

Another recognized German mine-layer was the 1,970-ton *Nautilus*, which had a yacht-like bow, two funnels, two masts, and a speed of 20 knots. She also carried 400 mines. This vessel left the Ems in the early hours of August 25, proceeded to the Dogger Bank, altered course, and then laid two legs of mines at midnight in a position approximately fifty miles E. of the mouth of the Humber. Both mine-layers then returned safely to Germany. It should be mentioned that a cruiser and torpedo-boat escort was sent part of the way, and that a number of our steam

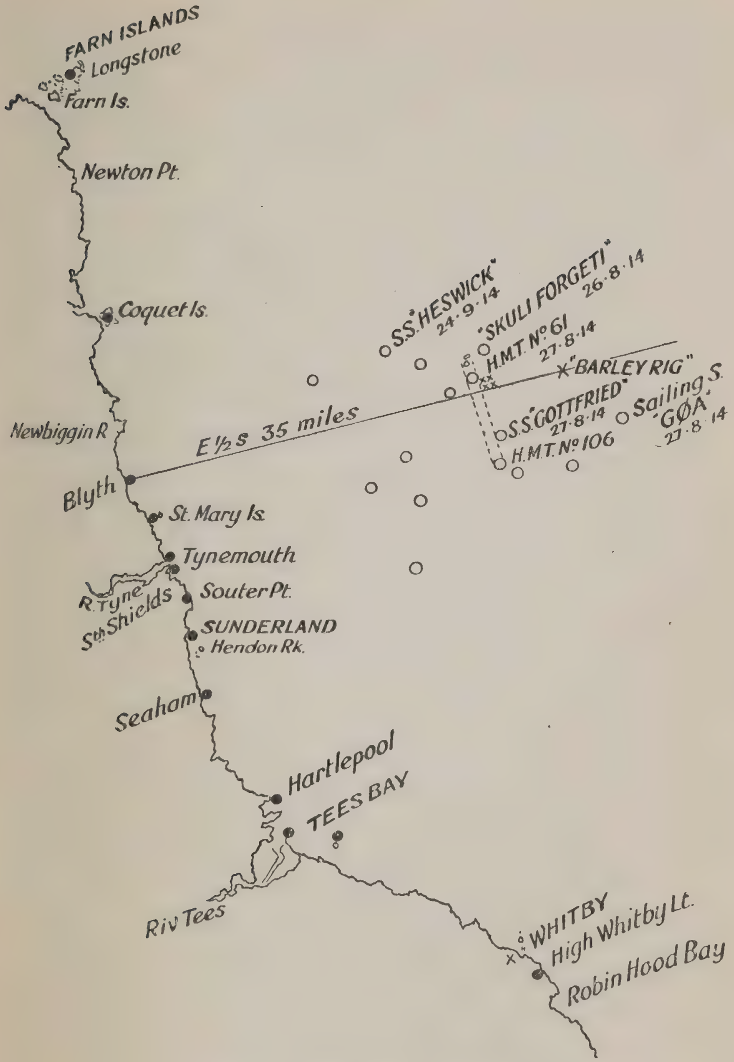

FARN ISLANDS
Longstone
Farn Is.
Newton Pt.
Coquet Is.
Newbiggin R
Blyth
E ½ S 35 miles
St. Mary Is.
Tynemouth
R. Tyne
Sth Shields
Souter Pt.
SUNDERLAND
Hendon Rk.
Seaham
Hartlepool
TEES BAY
Riv Tees
WHITBY
High Whitby Lt.
Robin Hood Bay
S.S. "HESWICK" 24·9·14
"SKULI FORGETI" 26·8·14
H.M.T. No 61 27·8·14
"BARLEY RIG"
S.S. "GOTTFRIED" 27·8·14
Sailing S. "GØA" 27·8·14
H.M.T. No 106

FIG. 1.—THE TYNE MINEFIELD.

Showing where some of the mines were found and shipping was sunk.

trawlers who were fishing along this route were captured and their crews taken prisoners to Germany. *Albatross*, it will be remembered, was driven ashore by the Russians on to Gothland during the following July, was subsequently salved, and interned in Sweden until after Armistice.

Now the effect of these two minefields* was very rapid. On the evening of August 26 one of the fishing drifters off the Tyne found her herring nets foul. Presently a mine exploded in her nets, then another, and finally a third. The same night a Danish fishing vessel blew up close by. Before dawn a Norwegian steamer blew up; that same morning a Danish sailing vessel foundered, but about 8 a.m. four mine-sweeping trawlers came out from the Tyne to begin their dangerous job in an undefined area. Before the afternoon was over, two of them had been blown up also, and mines had been found awash at low water. It was therefore decided to cease sweeping, and to concentrate on keeping swept a safe channel inshore up and down the coast; so, with the exception of a couple of exploratory sweeps later on, this Tyne area remained unswept till the end of the war. It was most unfortunate that politicians, ignorant of seafaring matters, should promulgate the absurd notion that this minefield had been laid by German fishing vessels wearing a neutral flag. This statement caused some amusement among those familiar with the capabilities of trawlers and drifters. You have only to measure off the distance to the nearest German port, and then consider how long it would take a 10-knot trawler to get across, and reckon how few mines she could carry. The conception was ludicrous; the operation would never have been attempted, and the

---

* See Appendix I.

German Government publicly denied the truth of this foolish suggestion; but it showed our state of nervousness and the dominating fear of mysterious 'hidden-hand' work.

The Humber minefield was not long in being discovered by the fishermen, for at ten o'clock on the night of August 26 the Great Yarmouth steam drifter *City of Belfast* found a couple of mines in her herring nets about thirteen miles N. by E. of the Outer Dowsing Lightship. Next day she saw another mine explode in her nets, so wisely left them, and it would seem as if this was the particular point of greatest danger. For here foundered three ships in 1914, two more in 1916, and even as late as April of that year thirty-five mines were swept up. Of course, neither the direction nor the extent of the minefield was known to us. Only a guess, supplemented by the efforts of the mine-sweepers and the known positions where ships had blown up, enabled a certain area to be painted red in the charts and proscribed as a mine area. Thus, within the first month of the war three dangerous areas had been laid off our coasts, and every one of them would have been far more disastrous but for the timely discovery by fishermen.

Although it became necessary to sweep certain channels through the Humber minefield for reasons of expediency, yet on the whole it existed until after Armistice, though from this field as from others many mines broke from their moorings in course of bad weather and drifted eastward across the North Sea. I have often examined the mechanism of one of the Humber mines, and no one can deny that it was beautiful work, of which even a watchmaker would not be ashamed. Naval officers will tell you that in this respect we had much to learn; but the knowledge came in the course of the war and was put to good use. Hence the vacancies in many a German family whose men went down in submarines.

But the Humber minefield soon began to cause losses to our sweepers. On the last day of August the gunboat *Speedy* was sent with some drifters from Lowestoft. And whilst the *Linsdell*, *Wishful*, and *Achievable* drifters were at their job, the former struck a mine near the Outer Dowsing and close to where the *City of Belfast* had first located her own danger. Instantly the *Linsdell's* stern was blown off; the bows up-ended, and disappeared a few minutes later. The *Speedy* lowered boats and picked up survivors, but the skipper, mate, engineer, and two deckhands perished. Presently the *Speedy* also, whilst engaged in this rescuing, hit a mine, which blew off the whole of the ship's after part, and she sank to the bottom. The drifter *Eyrie* also blew up on this same minefield, and later in the month yet another fishing vessel. Still, it is a matter for congratulation that these fields were all so quickly discovered. One has only to imagine what would have happened otherwise. Supposing a fleet-action had occurred in the North Sea, that certain wounded battleships had been making for the Tyne, the Humber, or Harwich. Their loss would amount almost to a certainty had these areas not been known. Thus the small craft had to suffer for the good of their bigger sisters.

The next stage was to modify that long swept lane from the Downs by creating an inner channel from Haisborough to the Inner Dowsing, and by the middle of September, thanks to the excellent work of the sweepers, this lane, buoyed all the way, extended from the Downs to Flamborough Head, and preparations were being made to continue it as far as Whitby.

The reader has only to look at a map of the British Isles to appreciate the immensity of the undertaking. Every additional mile of channel meant so many more mine-sweepers, but already trawlers were being taken up with all possible energy. And now the institution had become so vast that it needed a flag officer to look after it. Rear-Admiral E. F. B. Charlton was in charge of the Mine-Sweeping Service from the middle of September, comprising the gunboats, trawlers, drifters, and other vessels engaged in mine-sweeping and watching the channels in the area from the Goodwins to St. Abb's Head, though the organization of the yachts and armed trawlers, drifters and motor craft engaged in patrol work remained unaffected. At first sight this dual control may seem confusing, but at the time the influence of these minefields was considerable. Thus there were already mine-sweeping flotillas at the Nore, Dover, Harwich, Lowestoft, Humber, Tyne, Forth, Cromarty, Peterhead, Devonport, Portland, Portsmouth; and even the Pentland Firth was being swept. The gunboat mine-sweepers were based on Scapa, the two mine-sweeping gunboats *Halcyon* and *Spanker* at Lowestoft; but otherwise the whole work was done by trawlers and drifters.

One of the most surprising sights which is vividly fixed in my memory was the arrival in the early autumn at Grimsby of excursion paddle-steamers. Painted like men-of-war, they came in through the lock-gates, shipped their gear, and began a career of great usefulness. Many will thus remember the *Brighton Queen* and *Devonia*. They were taken up in the Bristol Channel, sent round to Devonport to be refitted, and then steamed up the North Sea to Grimsby—the cradle of the Mine-Sweeping Service.

It was because they drew about seven and a half feet against the trawlers' twelve and a half or thirteen feet aft; because, also, these excursion steamers had such a good turn of speed, that they became so invaluable in clearing up or defining the limits of a minefield. Thus it was owing to the success of the original hired flotilla that, later on, the Admiralty actually built for themselves a number of paddle minesweepers. Before October came in, the auxiliary fleet consisted of thirty steam yachts at sea or fitting out, three hundred trawlers and drifters, apart from the motor craft already alluded to.

As to the submarines, they were becoming more daring than ever. I remember coming into Dover Harbour, on September 29, and hearing Admiral Ballard giving certain instructions to an officer; for, two days previously, for the first time in history, the German submarine U 18 had entered Dover Straits and attacked the light cruiser *Attentive.* It was a momentous occasion, and indicated what was to happen later on when enemy submarines were to make regular journeys through this area until towards the end of the war our minefields caused this adventure to be too dangerous. That September date marks the beginning of a most daring phase of submarine warfare, for gradually the enemy was able to come further and further to the west coast of England, later to the west coast of Ireland, and later still to the Mediterranean and Dardanelles, and eventually to America.

A submarine was off the Goodwins on October 2; a few days later in the same vicinity the same or another one was seen; on the 15th the cruiser *Hawke* was torpedoed and sunk off the north-east Scotch coast, and then five days later U 17 captured and scuttled the S.S. *Glitra* off Skudenaes, Norway. This, again, indicated a new departure, because the *Glitra* was the first of that long list of merchant ships to be attacked by German submarines. On the 26th a submarine was still in the Dover Straits, for she torpedoed the S.S. *Amiral Ganteaume,* with Belgian refugees off Cape Gris Nez, and finally on the 31st she sank H.M.S. *Hermes* about eight miles W.N.W. of Calais. The Germans had thus every reason to be satisfied with their submarine achievements during the first three months of the war. This enthusiasm was to be put to practical effect, and it is important to observe how the enemy followed up his successes. The advance of his army along the Belgian coast gave him the harbours of Zeebrugge and Ostend. They would be ideal bases for the submarines, splendidly situated for attacking shipping in the North Sea or Dover Straits.

Commander E. E. Schulze, already cited above, says that the first submarine to enter Zeebrugge was U 12, arriving inside the Mole on November 9, 1914, being followed some time later by U 11. But we know also from his brother officer Captain Gayer that U 19 was on her way to that same Belgian port on the night of October 24, when the destroyer *Badger* rammed her off the Dutch coast and caused her to go back to Germany. U 12 and U 11 began to operate from the Flanders base, and on November 11 the former sank H.M.S. *Niger* off Deal pier, but was herself actually sunk by the destroyer *Ariel* in the following March largely through the excellent work of the Auxiliary Patrol, as we shall presently see. The Dover Straits, off and on from September 27, were thus a favourite objective of U-boats. And all this success was to be developed in quite another manner. Profiting by their newly won experience, the Germans immediately after the occupation of the Belgian coast laid down a smaller type of submarine. This was the UB class, which measured about ninety feet in length. They were smaller and handier craft, eminently suitable for wriggling through the Dover Straits and in confined channels. Of course it took some time to build them, and they were not ready until the early summer of 1915. The Flanders U-Boat Flotilla came into existence on March 29, 1915. The first to be specially detailed of the new type was UB 10, which had been put together at Antwerp, and then quickly there followed others of this class as they were constructed. Presently, too, came the UC class of mine-layers, about which we shall have something to say later on; for they were another complete innovation.

This Flanders U-Boat Flotilla gradually increased in numbers and size of craft, its maximum strength being attained in July, 1917, when thirty-eight boats were in service. Schulze claims that the Flanders submarines sank as many as 2,554 vessels, aggregating between four and five million tons, but admits that they lost eighty submarines from that base. It will always be a matter of regret that our allied armies were unable to prevent these two ports from falling into the enemy's hands, or that we did not forthwith block up the harbours, for thus the underwater craft were able to be three hundred miles nearer to our shores with consequent increased danger to the Channel routes, and subsequently to the western approaches of the English Channel. I make no apology for stressing the importance of these Flemish submarines, for it is impossible otherwise to realize the work of the Auxiliary Patrol based on Dover and presently on Dunkirk as well.

During November, 1914, submarines continued to operate up the North Sea and English Channel, but the 23rd is an important date for two separate operations. First of all we see Hersing in U 21 sinking, not by torpedo, but by gunfire, the S.S. *Malachite* as far down the English Channel as the vicinity of Havre, whither she was bound from Liverpool with a cargo for our armies in France. But, secondly, on this day the Auxiliary Patrol scored its first submarine success, and it was all the more welcome because so far the Royal Navy had sunk only one submarine—viz., U 15 by H.M.S. *Birmingham.*

It was in the early hours of November 22 that the Grand Fleet steamed out of Scapa Flow to make a sweep down the North Sea. In the early hours of the following morning U 18, which had come across from Heligoland, passed into Pentland Firth, followed a steamer into Scapa Flow approaches, but seeing the boom and that the Grand Fleet was not there, came out. When near Hoxa Head she was spotted and rammed by the mine-sweeping trawler *Dorothy Gray*, commanded by Skipper A. Youngson, R.N.R. Considerable damage was done to U 18 just after midday, though the trawler *Tokio* had been the first to see the periscope. Owing to the injuries to her hydroplane steering she nose-dived, hit the sea-bed, broke surface, and was now rammed by the destroyer *Garry*, hit the bottom again, broke down, drifted in the Pentland Skerries, fired star signals for assistance, and hoisted a white flag. Then, opening her flooding valves, she sank at the eastern entrance to Pentland Firth off Muckle Skerry, and the survivors were picked up by *Garry* and one other destroyer.

This incident came at a time when the Auxiliary Patrol needed some opportunity of showing its worth, and it certainly made an excellent impression. Everyone was delighted, including Admiral Colville, Admiral Jellicoe, and the First Lord of the Admiralty, who wired 'Hearty congratulations' to the trawler. Skipper Youngson and crew received the award of £500, and £100 was given to *Tokio.* It was certainly a great day in the history of the new Navy. But there was no time to ease up, for three days later Hersing had another gunnery success in sinking the S.S. *Primo* in the English Channel off Cape d'Antifer.

It was quite an easy matter for any capable, determined U-boat captain in those early days to get through the Dover Straits by working his tides and availing himself of the long dark hours. Hersing and others were able to report, on getting home, how simple it all was. For the defence of the Straits was conceived on the assumption of a *surface* attack against our lines of transports to France, and right till the end of the first December this conception was continued. It was natural enough to expect that an attempt would be made to cut these lines of communication, but the danger of the submarine and its vast possibilities can hardly be said to have been appreciated. The Dover anti-submarine patrols were practically negligible; the Auxiliary Patrol force was small. It is true that during October British minefields were laid to guard the Dover Straits against surface attacks from the north-east; but it is now common knowledge that our mines were then unsatisfactory and that the moorings were far too weak. The result was that practically every mine got adrift and was either sunk by our own flotillas or

A British Floating Mine

Sinking the above by Rifle Fire

To face p. 38

made its way across the North Sea. Six months after the war I noticed that some of those washed up on the Dutch coast had been turned into excellent flower-pots and adorned the garden villas near the sand-dunes. But as a protection of the Dover Straits they were quite useless until, profiting by what we learnt from German mines, we were able to manufacture an improved pattern much later in the war.

It was the sensation caused by the sinking of the battleship *Formidable* west of Portland in the dark hours of the morning of January 1, 1915, that gave the necessary impetus towards denying the Dover Straits to submarines. For U 24, having recently joined the Flanders base, was sent to operate through the Dover Straits, and actually got further west than any German submarine had ever been. All the time, you see, the U-boat was going further and further afield, and showing what could be done. The problem now was how to close the Straits. No one knew; the U-boats were eluding us all the time.

Why not employ nets? This idea had existed prior to the war, and during the autumn of 1914 experiments were carried out by several officers, yet there was very little practical information available. But the day following the loss of *Formidable* it was decided to obtain four drifters from Lowestoft, and so, on January 4, we find the *Young Fisherman*, *Sedulous*, *Nine Sisters*, and *Ocean Comrade* on their way from that port to Dover. Unlike the trawlers, drifters lie to their herring nets, and thus, just as the former were at once suitable against mines, so the latter were ready at hand against submarines. It was Admiral Sir A. K. Wilson's idea.

The Admiralty pattern of indicator net was, however, designed by Lieutenant Bircham, R.N.V.R.

This officer was an amateur yachtsman, and a professional engineer of great ability, and originally was in command of *Mayfair*, the first of the motor-boats in the R.N.M.B.R., being sent at the beginning of hostilities with his craft to the Forth. His active mind then became interested in the creation of a boom defence guaranteeing security to the battle-cruiser fleet anchored above the Forth Bridge, and the construction of this great task was largely owing to his work.

The basic idea of the indicator net is simple. Constructed of high tensile wire, the nets were a hundred yards long and originally either thirty or sixty feet deep. Each net was to be complete in itself, and easily detachable from the entire fleet of nets. It was assumed that if a submarine submerged, she would go no lower than sixty feet, that she would then detach the net, wrap it round her, fouling her propellers; but at the same time would indicate her presence by means of a small mark-buoy on the surface attached to the net. The drifter would then be able either to attack or to warn some patrol craft. In the early stages of the war I had every opportunity for watching the evolution of this idea. Awkward things to handle, especially when laying them; frequently becoming kinked where every six hours in a strong tideway the current turns in the opposite direction, they were a cumbrous business, and the number of submarines which these nets, whether moored or drifting, accounted for was extremely small, and out of all proportion to the considerable cost and employment of hundreds of drifters and men which became essential.

It was really rather worse than this, for the nets lulled us into a false sense of security, inasmuch as the U-boats soon learned to negotiate them whilst we fondly imagined no such achievement was taking place.

But the loss of the other naval and commercial ships, and especially of the *Formidable*, made it necessary to do something; and the net idea at the time seemed the only solution. But it is one thing to sit in an office, draw a red line across the chart of Dover Straits, asserting that this line of nets is stretched to make the passage of submarines impossible. It is quite another matter to be out in the drifters in the strong Dover tideway, in bad weather or at night, vainly endeavouring to keep the nets in position. No class of men in existence knew more about nets than these drifter men who had been handling herring nets ever since they were boys; so they were just the fellows for the execution of this idea.

Immediately orders were given to a number of firms to manufacture these steel wire nets in large quantities, as well as buoys. At Lowestoft every available drifter was taken up and sent to Dover, and a new organization of these little craft was at once established under a naval captain. As each drifter arrived at Dover she was fitted with five hundred yards of these new nets, and by the middle of January the first trial of shooting the nets took place in the Straits under Admiral Hood, who afterwards perished at Jutland. Day after day experiments went on, and showed how difficult it was to ensure the nets being kept in position and to find a satisfactory detachable clip.

The idea spread to other ports, and net-drifter bases were quickly established also at Peterhead, Great Yarmouth, Cromarty, Firth of Forth, Harwich, the Nore, Poole, Portland, Portsmouth, Falmouth, Devonport, Milford, and Larne. So much had to be learnt by experiment because it was a new method of which no data existed for guidance; but it afforded a fine opportunity for this particular class of fishermen to show their enthusiasm and originality, some of the important improvements in this connection being their own invention. By February the Dover Net Drifter Flotilla was in full working order with thirty of these craft lying to their nets across the Straits during the daylight hours. The Straits were thus unprotected at night, and it became easy for submarines to pass through. Similarly it was found that so many nets were lost in bad weather that these operations were restricted to suitable conditions. Therefore the practical value of the imaginary line across the chart was really quite small. There were minor difficulties, too, such as the method of supporting the nets. Kapok and glass balls were both tried, but the former soon became sodden, and the latter used to break adrift by the score, being eventually washed up on some beach and thoroughly scaring the discoverer.

The clips and indicator buoys also gave an immense amount of trouble during the spring of 1915, and at every base experiments were daily being made. But even if all this net enterprise was to be of little avail, it was the beginning of a considerable attempt to outwit a special kind of torpedo-craft that had shown itself at once so dangerous and so difficult to thwart. The period was not altogether wasted, for it takes time for big fleets of drifters to settle down to naval routine and discipline. The new Navy and the old were beginning to understand each other, and a mutual admiration had already commenced.

CHAPTER IV

TRAWLERS AND DRIFTERS

It is time now to see how the auxiliary ships were settling down to their tasks elsewhere. The steam yachts and trawlers patrolling were spread along the coast as widely apart as possible so as to cover the greatest area for submarine watching. Trawlers and drifters still continued to retain their fishing numbers, with the crews in fishing kits so that submarines might not readily distinguish between armed and peaceful craft.

By the middle of October Rear-Admiral Hood had been appointed to look after the gradually increasing Dover Patrol, and Rear-Admiral Ballard came up to the Humber as Admiral of Patrols with the large area from the Naze to St. Abb's Head under his control, with the exception of the mine-sweepers which remained under Admiral Charlton, who used the yacht *Zarefah*, and later the yacht *Sagitta*, for the purpose of inspecting the swept channels and the trawlers at work.

It will be recollected that on October 12 the Royal Naval Division re-embarked at Ostend, and two days later the Germans entered that port. The Belgian fleet of thirty steam trawlers, which were a well-known feature of that harbour (most of them having been built in England on the lines of our own craft), therefore steamed over to England. Of these, about one-third were subsequently taken up for minesweeping, were sunk, or sold to British owners. The rest one used to see fishing out of Milford, Swansea, and Fleetwood, but with a British pilot on board.

In the Downs four armed drifters were attached to the boarding flotilla controlling the enormous flow of traffic passing through the Straits, and acting as sentries to vessels awaiting escort. In Scotland, Granton was now becoming an important base for the new Navy. Before long it was to be full of steam yachts, trawlers, and both kinds of drifters. The Germans soon began to mine the Belgian coast and to fortify it with batteries along the sand-dunes for their long sojourn in that country, and there followed of necessity later on considerable work for our Auxiliary Patrol.

Generally along our coasts for steady, routine patrolling the trawler had already more than justified herself, and during that first winter stood any amount of bad weather and knocking about which the destroyer had to endure with injury. Before the end of October the functions of the motor-boats were laid down as being for the purpose of examining coast, harbours and inlets, and denying the use of these places to hostile craft. Seven were already working at Scapa Flow; and in such neighbourhoods as off the east coast ports, in the Downs, and off Dungeness they had already made themselves so useful that the demand exceeded the supply. So, too, because of the increased submarine activity more armed trawlers were taken up and sent to such east coast bases as Cromarty, Peterhead, Scapa, Rosyth, and Great Yarmouth. But the shortage in small guns—12-, 6-, and 3-pounders—was before long acute.

The Firth of Forth Auxiliary Patrol units with their steam yachts and armed trawlers were at sea scouting along the Scotch coast, watching for submarines lying off the Forth approaches, and even searching up to thirty miles from the land; an R.N.R. lieutenant or sub-lieutenant being division leader in a trawler fitted with wireless and keeping in touch with the steam yacht and shore base. By the end of October thirty-two Auxiliary Patrol units had been established round the coast, consisting of thirty-seven yachts, a hundred and thirty armed trawlers, two hundred and forty-six mine-sweeping trawlers, forty-two drifters, two paddle-steamers, besides the motor craft.

But now came another shock, which was to create a still greater demand for the ships of the new Navy. The German Official Naval History has since been published so that we can now get a clear account of that tragic incident which led to the loss of *Audacious*, one of the crack battleships of the Grand Fleet off the north coast of Ireland. At the time, and for long afterwards, this loss was breathed in only the most confidential whispers, though within a very short time a well-known American journal was passed round the ward-room of a certain depot-ship showing an excellent photograph of the *Audacious* foundering. The story briefly is as follows:

On October 14 the old Atlantic liner *Berlin* under Captain Pfundheller left Wilhelmshaven with orders to penetrate the Irish Channel and lay mines, if possible, in the Firth of Clyde. But, for reasons which need not here be investigated, a large part of the Grand Fleet had been withdrawn to this neighbourhood about the time *Berlin* arrived, and she became alarmed at the number of British wireless messages. Arrived off the North Irish coast in the late afternoon of October 22, she was ready to throw overboard her two hundred mines under cover of darkness, and then hurrying north between Iceland and Greenland reached Trondhjem, where she was interned. Actually she had laid her mines in two legs off Tory Island, and thus failed to carry out the letter of her instructions; but she had carried out the spirit, and the success was very considerable.

On the morning of the 27th the S.S. *Manchester Commerce* outward bound struck one of these mines and sank. Next morning H.M.S. *Audacious* struck another and also foundered. A mean position gives this danger spot as about nineteen miles slightly east of north from Tory Island. Here was a new, difficult, and dangerous job for the mine-sweepers to tackle, and for the time being Admiral Jellicoe's Fleet was compelled to remain inside Lough Swilly. The enemy certainly had amazing luck. The Admiral telegraphed for mine-sweeping trawlers to be sent to Lough Swilly, and four were at once despatched from Milford Haven. Two more groups of trawlers were sent from Lowestoft to Larne (to sweep the North Channel) and to Milford (to sweep the St. George's Channel). Before the end of the month half a dozen trawlers began sweeping an exit for the Grand Fleet from Lough Swilly westward but south of Tory Island. No mines were found, and the Grand Fleet was able to emerge in safety.

Actually the minefield was much further to the north, as stated. Searching for such an unknown area in the heavy Atlantic swell with deep-draught trawlers is no picnic, but these gallant ships of the new Navy had located the field five days before Christmas and already destroyed a dozen mines. It was to be a long, wearisome, trying business and often interrupted by bad weather. But the trawlers stuck to their job manfully, well knowing that any moment they might suffer the fate of *Manchester Commerce* and *Audacious*. Half a dozen paddle-steamers were sent from the Clyde to help, so that by the following April by far the greater number of *Berlin's* mine cargo had either been swept up or had drifted to northern Ireland, the Hebrides, or the main west Scottish coast; for, as in other minefields, the wintry gales were all helping to break the mines from their moorings. During April, 1915, a Norwegian grain ship foundered in the field, which was presumed to be clear in June, 1915. Nevertheless, as late as two years after it had been laid one of these mines was destroyed in its original area.

One natural result of this minefield was the increased demand for Auxiliary Patrol craft, and, in particular, it brought about the use of Larne as a most important base for the new Navy, where a large number of net-drifters were presently to assemble in order to work their anti-submarine nets towards the Scottish shore, thus denying (in theory at least) the passage down the Irish Sea. Similarly Milford also became an important drifter base with nets laid across St. George's Channel, as in the Dover Straits. Armed yachts and armed trawlers were also assisting to patrol. No one who was serving at Milford will forget the tremendous fleet of drifters, trawlers, and a few steam yachts going in and out of its broad haven. It was an amazing demonstration of a novel form of sea-power which will live in the memory for a long time.

But events were following each other now rapidly. On November 3 came the Gorleston raid, when the enemy laid another minefield off the East Anglian coast, and three fishing vessels as well as one of our own submarines foundered. But next day the mine-sweeping trawlers got to work near the Smith's Knoll buoy, and one of them, the *Mary*, hit a mine and sank. Meanwhile Admiral Jellicoe was asking for still more trawlers and yachts; mine-sweepers were also required to work off the Belgian coast in order to sweep ahead of Rear-Admiral Nicholson's ships which were bombarding Zeebrugge.

I have no wish to depict the trawlermen of the new Navy as the embodiment of all virtues. This they certainly were not. The career of a fisherman sometimes consists of a strenuous time at sea, punctuated by a series of 'rough-house' incidents in harbour. The trawlerman of 1914 was a rough, tough, hard-case fellow who did not take kindly to naval discipline at first. During that first autumn and winter not a few of them received sentences of ninety days, and I recollect one trawler where the whole crew (the skipper excepted) were put into cells. Many of the skippers used to get drunk and become unsatisfactory in other ways. You have only to refer to the Navy List for December, 1914, to see that skippers had to be turned out of the service pretty soon.

It is unpleasant to mention these facts, but it is only fair in the interests of truth. On the other hand, it may be stated at once that many naval officers foolishly attempted to use the methods on independent fishermen which had been devised only for men accustomed to the life and discipline of the Royal Navy. As time went on, and naval officers began to realize what a magnificent, plucky, hard-working, resourceful body of men these were, greater tact and latitude were employed, with most satisfactory results. Instead of being strangers and enemies, the old Navy and the new became mutual admirers and fast friends, pulling

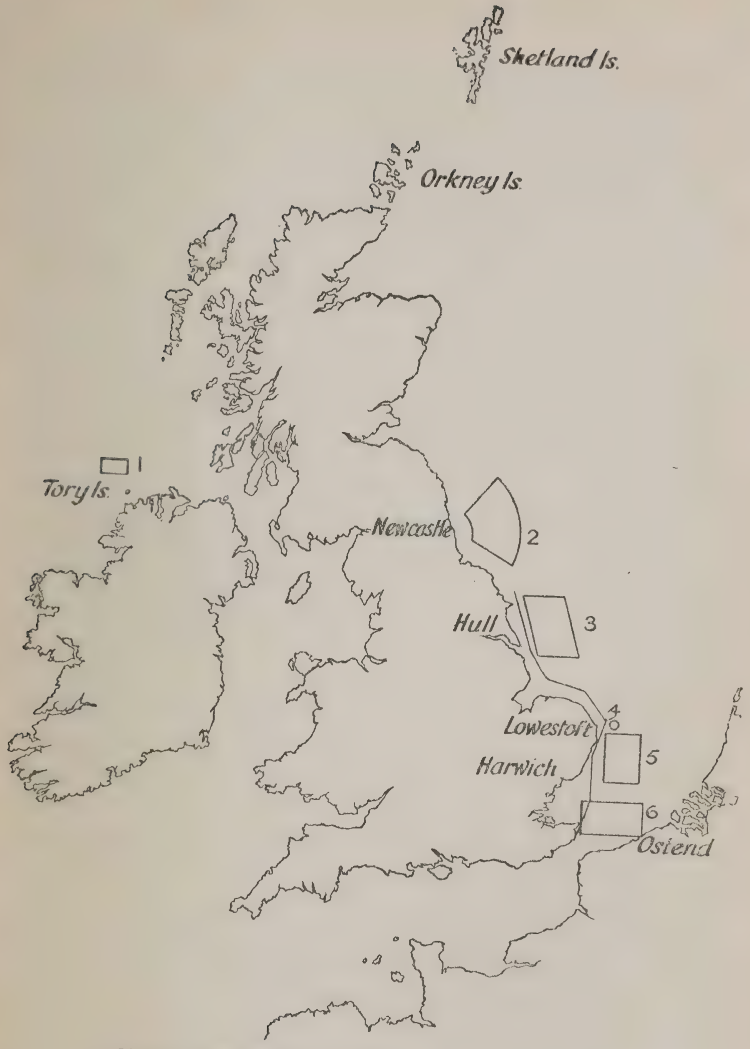

Shetland Is.
Orkney Is.
1
Tory Is.
Newcastle
2
Hull
3
4
Lowestoft
5
Harwich
6
Ostend

FIG. 2.—MINEFIELDS EARLY IN NOVEMBER, 1914.

No. 5 shows the Southwold area fouled by *Königin Luise;* No. 2 is the Tyne area; No. 3 the Humber area; No. 4 was laid at the Gorleston Raid; No. 6 was the British minefield; No. 1 was the Tory Island minefield laid by *Berlin.* The line from the North Foreland to Flamborough Head shows the swept channel.

together for the one big cause. The mine-sweeping operations had, more than anything else, to do with this improved tone, though the incident of the *Dorothy Gray* and the general alertness up and down the patrol channels were contributory factors. You can lead a fisherman, but if you try to drive him you only put his back up. The result is an unhappy ship, and still more trouble on reaching shore.

Admiral Jellicoe knew well enough the value of these men when he remarked that 'the Grand Fleet could not have existed without the trawlers,' and, before long, every Senior Naval Officer round the coast was only too thankful for their invaluable work. As against submarines, auxiliary craft had only four methods of attack. They could use their stems and ram, as in the case of the *Dorothy Gray;* they could explode their guncotton sweep; they could use the 6- or 3-pounder gun; and, in the case of the drifters, they could employ their nets. But outside these four methods no other existed at that time.

Few of us who were up and down the North Sea during that first winter of war will forget the sight of these trawlers at work all down the coast from Yorkshire to Hampshire, sticking out vile weather to maintain their patrol. The summer that year was a long time ending; October was exceptionally fine off the east coast until the last Thursday in that month, when there blew that famous easterly gale, and the hospital ship *Rohilla* was wrecked off Whitby with the loss of seventy-three lives. November came with its fogs, and then December, when it blew hard in the most monotonous manner every other day. But the trawlers were the best of all craft for riding out bad weather.

Those were dark days on land and sea. Things were going none too well with our armies on the Continent, and there was a request for trawlers to be employed sweeping off the Belgian coast. Before the middle of December, the yacht *Zarefah* (with her crew of Cambridge rowing men, including several 'blues,' and commanded by Lieut.-Commander Stuart Garnett, himself a Wrangler, the founder of the sea-scout movement, and a keen amateur yachtsman) arrived off Dunkirk with seven trawlers. The idea was that three pairs of trawlers should sweep the West Deep channel, but the Germans opened a heavy fire, and shells burst round the sweepers, so they returned to the Zuidcoot Pass and anchored until after dark, when the *Zarefah* led two trawlers, with lights out, sweeping along the five-fathom line to within a couple of miles of Nieuport.

And then, on December 16, came the famous Scarborough raid, when, as part of their attack, the enemy laid a line of mines that not merely seriously congested shipping traffic for days, but caused the loss of seven British steamers, seven neutral ships, two trawlers, four mine-sweepers, and badly damaged an armed yacht. I happened to be on the Humber at that time, and in close touch with officers and men engaged in clearing this minefield, and kept a full diary of those eventful and depressing days.

The great consolation is that none of the Grand Fleet ships suffered loss by this minefield. The mines were dropped at eight in the morning, and almost immediately the Norwegian S.S. *Vaaren* foundered on one of them. Rear-Admiral Ballard, who was at Immingham, in command of the east coast, was at breakfast when the signal came through that Scarborough was being bombarded, and he at once put to sea in the light cruiser *Skirmisher*. I can still see her, looking most businesslike, with her admiral's flag at her mainmast; her grey paint and three saucily cocked funnels; her fine, lean, graceful hull, conscious of her reputation as one of the best-looking ships in the service; to-day, cleared for action, she certainly looked the goods. And then, in the early hours of the next morning, came limping in the destroyer *Hardy*, much battered about by enemy shells, wireless gear shot away, holed on the water-line, bridge wrecked, with some of her crew dead and wounded.

Three days later began the work of the mine-sweepers. Enormous quantities of shipping were being held up in the Humber because of this fouling of the North Sea route, and, unless trade was to be throttled, a channel must be cleared at once. Actually, as the reader is aware, the lane now existed from the North Foreland to Filey. By keeping the buoys in sight, and not steaming at night, vessels could be sure of safety from mines. But now it was decided to continue this channel right up to Hartlepool. Grimsby trawlers, the *Brighton Queen* paddler, Lowestoft drifters, all collected for the big job, but the *Brighton Queen*, in command of a naval officer, was in charge of the operations. Before long the mine-sweeping trawler *Passing* (Lieutenant G. C. Parsons, R.N., with a fisherman crew) hit a mine, was holed, but towed by *Brighton Queen* into Scarborough Beach, and afterwards repaired at Grimsby. The size of her hole was amazing. Next blew up the mine-sweeping trawler *Orianda* (Lieutenant H. Boothby, R.N.R.), though only one man was killed, and then the *Star of Britain* (Lieutenant C. V. Crossley, R.N.R.) fell a victim.

The Grimsby trawler unit had thus quickly come into action and received heavy casualties. They had begun sweeping close along the coast between Flamborough Head and Scarborough. It was their show, and it was only by accident that the old gunboat fleet sweepers *Skipjack*, *Jason*, and *Gossamer* (on passage from Sheerness to Scapa) happened to be near Lowestoft when they were ordered to sweep from Filey northwards. At 8.30 on the 19th they had already swept up a couple of mines, and half an hour later sighted the Grimsby trawlers at work inshore. On closing them, the gunboats found the trawlers in a veritable nest of mines, and within five minutes eighteen of these death-traps were accounted for. Picture this cold, wintry scene in the North Sea, with violent detonations shaking every vessel, a mêlée of trawlers—most of them with their sweeps parted—mines drifting around them, and three of these auxiliary vessels already 'done in.' One of these trawlers was slowly sinking, still carrying her way, her mast nearly submerged, and passing through the water like the periscope of a submarine. Another was badly on fire with her consort steaming to her assistance.

It was now low water—the most dangerous period of a minefield, when these floating terrors are nearest to the surface—and this large flotilla found themselves in the middle of the field. They were wisely ordered to anchor, for presently, to make matters worse, the weather became hazy. But the trawlers had defined the inshore end of the field, the fleet sweepers had been able to locate the seaward end, and then the latter carried on to Hartlepool and Scapa, leaving the trawlers to their work. On the 20th the sweeping was continued. The steam yacht *Valiant*, one of the armed yachts to which retired admirals gallantly volunteering for active service were appointed in command, was the next to suffer. This fine craft of 2,184 tons (Thames measurement), owned by Lord Pirrie, was under the command of Admiral Barlow. She was on her way to Cromarty when she struck a mine off Filey, thus springing a leak, disabling both propellers and rudder. In spite of it being low water, a couple of trawlers went across the minefield and brought her safely to anchor off Scarborough. Another distinguished flag officer who obtained a similar command to the captain of the *Valiant* was that gallant old Admiral Sir Alfred Paget, a fine English gentleman, and one of the bravest seamen who ever stepped aboard a ship. With his monocle and white beard he was a picturesque personality, serving as a temporary R.N.R. officer in the Auxiliary Patrol, commanding his sister's yacht, the *Evening Star;* but as this craft was found too small, he was given command of the 1,022-ton steam yacht *Eileen.*

Neither North Sea weather, nor mines, nor submarines, nor anything else, ever had terrors for Admiral Paget. I believe he was one of the first people who ever had the courage to come down in a parachute. He wore himself out during the war, and thus died. But the day after this second casualty he brought the *Eileen* along, and towed his brother admiral first back to the Humber and then right away down to inside the Isle of Wight, so that the *Valiant* was afterwards repaired. I can still hear his hearty voice on *Valiant's* deck, informing Admiral Barlow how he proposed to tow him down the North Sea. 'But the moment I sight a submarine, I shall let you go and chase the enemy.'

About an hour after *Valiant's* injury the armed patrol trawler *Garmo* struck a Scarborough mine, turned right over and sank, with the loss of one officer and five men. But the good work went on all the same, and the trawlermen covered themselves with eternal glory. On the 23rd, the Grimsby fishing trawler *Orcana* struck a North Sea mine, and all her crew perished with the exception of the Second Engineer, John Rollinson, who was found unconscious on an upturned boat by another Grimsby trawler, who brought him home. Rollinson was a real man, and typified the spirit of the fishing fleet. Although this was the second time he had been blown up, he had not been landed very long before he proceeded to the Grimsby mine-sweeping office and signed on for service in one of the Auxiliary Patrol trawlers.

Christmas Day came with sadness. The minesweepers were busily at work as usual. Among them was the Grimsby trawler *Night Hawk*, which had been operating between Flamborough Head and Whitby. At the end of her day's work on Christmas Eve she had gone into Whitby, and next morning came out at seven o'clock; but off Scarborough she struck a mine, and the vessel went down in less than ten seconds. According to Skipper Evans's evidence at the coroner's inquest the whole bottom of the ship fell out with engines and all hands that happened to be below. But her commanding officer, Sub-Lieutenant W. A. Senior, R.N.R., was among the seven saved. On that day, in the same minefield, blew up the S.S. *Gem*, also the S.S. *Eli*. But that was not all.

There came a chance for the drifters to distinguish themselves this day. These had been sent, it will be remembered, from Lowestoft, the purpose being to keep merchant shipping out of the mined area. Now it happened that the 4,592-ton British steamer

Gallier had the misfortune to strike a mine, but she did not sink. In charge of these drifters was Skipper E. V. Snowline. It was a bitterly cold, frosty day, and by the afternoon the usual Christmas gale was blowing, but Snowline's drifters stuck it out in the heavy seas, and at the risk of being mined this skipper proceeded in his own ship, the *Hilda and Ernest*, to stand by the mined *Gallier*, and Skipper Allerton, in the drifter *Eager*, did the same. Skipper T. W. Trendall, in the mine-sweeping trawler *Solon*, pluckily went to the assistance of *Gallier*, in spite of the darkness, the condition of low water, and the gale. Having searched for her in the minefield, he was able to find her at length and bring her into Scarborough, and no one will begrudge the D.S.C. which the King afterwards presented to Skippers Snowline and Trendall. Thus, before the end of the year, the Auxiliary Patrol had more than justified itself in regard both to submarines and mines.

It was not until April, 1915, that the operations on the Scarborough minefield were completed, but by Boxing Day a narrow channel had been cleared and buoyed for traffic. Still, two other steamers foundered before New Year's Day. On January 6 another mine-sweeping trawler, the *Banyers*, hit a mine and foundered off Scarborough, her commanding officer being Lieutenant H. Boothby, R.N.R., who had already been blown up in *Orianda* on December 19. Once more he emerged with his life and was awarded a D.S.C.

Admiral Scheer in his ‘ Germany's High Sea Fleet in the World War ’ states that the results of German mine-laying (that is, the Southwold, Tyne, Humber, Tory Island, and Gorleston fields) were not known to the Germans when they laid the Scarborough mines.

He further says that the latter were laid by the light cruiser *Kolberg* (4,350 tons, 25 knots) 'along the coast, for there was constant traffic between the east coast ports,' and mentions than an officer of one of the U-boats had reconnoitred this coast before. Practically every mine laid by the enemy was accounted for by us, and but for the fact that a few British and neutral ships of little value and a number of invaluable lives were lost, no important benefit resulted. But we were able to obtain from this minefield the first German carbonit mine, and it was brought into Grimsby, where it caused considerable interest. Having been carefully examined and taken to pieces, the mechanism afforded certain information which was afterwards of great use to our own mine department.

CHAPTER V

THE AUXILIARY PATROL AND THE SUBMARINE BLOCKADE

Before the end of 1914 the Auxiliary Patrol had been divided into twenty-one areas embracing the entire British Isles. These twenty-one were Loch Ewe and Stornoway; Shetland Isles; Orkneys; Cromarty; Peterhead; Rosyth; Granton; Tyne; Humber; Great Yarmouth and Harwich; Dover; Portsmouth; Portland; Devonport; Milford; Liverpool with Kingstown and Belfast; Larne; Lough Swilly; Blacksod Bay; Galway; Queenstown and Berehaven, in addition to the Clyde and Nore areas. As time went on, and the Auxiliary Patrol became still bigger, the scheme of these areas underwent some modification; but on the whole it remained pretty much as indicated.

This arrangement, with a Senior Naval Officer in charge of each area, made for efficiency, and the number of units was regulated by the nature of the coast—*e.g.*, inlets, bays, shoals, on or off the trade routes, etc.—and by the temptation which was held out to mine-layers or submarines. For instance, it needed the loss of *Lusitania* to show the importance of auxiliary patrols off the south-west of Ireland. Before the end of February there were over sixty drifters based on Dover, and experiments were still going ahead with the nets, though many nets were lost owing to bad weather and wreckage accumulated through centuries at the bottom of the Straits.

A further development was heralded when experiments were made off Dover with explosive charges attached to the nets. The result was that during the summer electro-contact mines were fitted to these nets so that a submarine striking would herself be damaged. They were used until the end of the war, especially in connection with the barrage that was laid off the Belgian coast. According to Gayer, at the beginning of 1915 there were twenty German submarines at work in the North Sea, and, shortly before this, U 24 went to join up at the Flanders base. Three days before Christmas it will be recollected that Admiral von Tirpitz had forecasted a submarine campaign against commerce, and this was presently to be inaugurated.

The drifters in the Downs Boarding Flotilla were having a busy time, frequently examining as many as eighty vessels a day. Still more handsome steam yachts had to be taken up, such as the *Sapphire*, *Miranda*, *Rosabelle*, *Jeannette*, *Narcissus*, *Bacchante*, and others. There was yet a shortage of guns, everywhere there was an increasing demand for trawlers, and now these had to be fitted out and despatched to the Dardanelles. Seven were at once selected at Grimsby and fourteen at Devonport. They were soon on their way out to Malta via Gibraltar, after making good defects and taking aboard shipping stores: thus there was yet another sphere for the fishermen's services.

Meanwhile Hersing in U 21 created still another submarine record by proceeding through the Dover Straits, down the English Channel, and up the Irish

Sea. It was the first time that a German U-boat had penetrated thus far, and once again it showed the immense potentialities of the new weapon and the helplessness of our defence. She was first sighted on January 28 by the armed drifter *R.R.S.* off Bardsey Island, and then U 21 bombarded Barrow, but the Walney Island battery returned the fire and the submarine made off. She then operated off the approaches to the Mersey, and sank the three steamers, *Ben Cruachan*, *Linda*, and *Blanche*, and was herself attacked by the Auxiliary Patrol yacht *Vanduara*, thirty miles N.W. of Fishguard. But U 21 got safely back to Wilhelmshaven, and so pleased was the Kaiser with her achievement that he is said to have distributed a number of iron crosses. U 19 had been operating in the North Sea and sank the British S.S. *Durward*, twenty-two miles N.W. of the Maas Lightship before the latter could get her Leith cargo to Rotterdam. The well-known German writer on naval subjects, Captain Persius, discussing these two cruises in the *Berliner Tageblatt*, suggested that thus there would be driven home to the English the fact that their commerce even on the west coast was not free from molestation. 'England seems to set her highest hopes on starving Germany. We must repay like with like.'

This fairly represents the attitude at the back of German submarine policy. It was the pressure of the Grand Fleet which, so to speak, squeezed the U-boats into activity against our commerce, and thus made the work of the Auxiliary Patrol so important. Thus, having proved by the voyage of U 21 that a submarine could operate and return from the West of England, Admiral von Pohl, Chief of the German Admiralty Staff, declared by a notice in the official

Reichsanzeiger, on February 4, that the waters around Great Britain and Ireland were herewith in the war zone; and that from February 18 every merchant ship met with in that zone would be destroyed. Admiral Scheer, in his book already cited, states that a blockade was not declared, for the reason that Germany had not enough submarines for making a blockade effective. He says, further, that the orders to the U-boat captains were to prosecute the U-boat campaign against commerce with all possible fervour; to destroy hostile merchant ships; to spare neutral ships, hospital ships, and ships of the Belgian Relief Commission. If mistakes were made, the U-boat captains would not be held responsible, provided great care had been used.

The German Captain Gayer says that his country had twenty-three submarines with which to begin this submarine blockade, but there were on hand—not yet ready for service—forty-two large submarines and a hundred and twenty-seven small ones being built. At the beginning of this year ten big mine-laying submarines were also laid down. The same authority points out that on land, owing to the retreat from the Marne, the position at the beginning of February was such that a decision had to be sought at sea, either by the High Seas Fleet in conjunction with the U-boats, or by a purely submarine war. He suggests that had one of these two alternatives been adopted, the Germans would have been victorious. Commander Schulze also takes the view that the U-boat war against our trade ought to have been prosecuted ruthlessly from an early date; and this is the present post-war German attitude.

It is interesting to see how events now shaped themselves. The geographical position of Great Britain is such that a vessel proceeding from Germany has only two outlets—either round the North of Scotland or through the Dover Straits. Had we been in possession of a reliable type of mine and mooring in adequate numbers, we could have strangled the submarine menace within the first few months. By the end of the war the northern barrage from Scotland to Norway and the Dover Straits barrage made the passage of submarines practically suicidal. But, in February, 1915, both of these two routes were available, and the British minefields which existed in the eastern English Channel approaches were negligible and inefficient. To a U-boat, then, proceeding north about, there was the Shetlands Patrol of three yachts and eighteen trawlers and the Orkneys Patrol of ten yachts and seventy-two trawlers. There were also drifters with indicator nets to the north of the Orkneys and off the Scapa Flow entrance.

With regard to the Dover Straits, there was a fleet of twenty armed drifters patrolling the northern part of the Downs, and based on Ramsgate; armed trawlers were patrolling from the Downs to Folkestone, three unarmed trawlers were patrolling outside Dover Harbour, and there was an area of drift-nets watched by drifters who endeavoured to keep close to the position of lighted buoys moored for their guidance across towards the French coast. The Admiralty were thus keenly alive to the importance of closing the Straits, but they were relying on a net barrier which was to prove no barrier at all. The Southampton-Havre line of communication was watched by trawlers, and various bays and sheltered places were netted where it was thought submarines might rest

AUXILIARY PATROL TYPES
Trawler hand as sentry. By his side is the Mate of a Drifter.

H.M. DRIFTER 'DAISY VI.'
Armed with 6-pounder gun forward, rapid-laying nets, lance-bombs, etc.

To face p. 62

on the bottom. And all round the coast every patrol area was strengthened as far as possible with additional craft. Every available 12-pounder, 6-pounder, and 3-pounder gun was sent to yachts and trawlers; every drifter that could be taken up was sent with her indicator nets to important bases as far away as even Falmouth and Larne, and instructions were issued to have trawlers at sea patrolling off the coast. Admiral Barlow was sent to take charge of Larne, and in addition to the drifters was given a flying squadron of the six large-armed yachts, *Valiant* (now repaired), *Jeanette*, *Marynthea*, *Medusa*, *Narcissus*, and *Sapphire*. Kingstown was detached from Liverpool, and Rear-Admiral E. R. Le Marchant was given command of the Irish port, which became an important Auxiliary Patrol base. Similarly Milford was to become much greater in respect of numbers and strategical importance than previously, so Rear-Admiral C. H. Dare was appointed in command.

For the aim now was to do for the Irish Sea what had been attempted in the Dover Straits. If you look at the map it is self-evident that there are only two entrances to the Irish Sea—the North Channel between Ireland and Scotland, and St. George's Channel between Ireland and Wales. If these could be barraged, protection would be afforded to Liverpool shipping. So hundreds of drifters were sent westwards. The Larne drifters operated in an area thirty miles long and twenty-two miles wide, towing their nets across backwards and forwards, with patrols at either end of this thirty miles. Thus, if the submarine dived to get under this netted area, he would be in an exhausted state by the time the patrols were reached.

Admiral Le Marchant's craft were disposed to protect the Kingstown-Holyhead route. This was important also because of the transport of troops from Ireland to England. Presently Admiral Dare's drifters and trawlers created a mobile barrage across the St. George's Channel. Thus, the strategy was very extensive. Consider what was involved by all this. To maintain such long lines permanently, ships and men have to return to port every five days at least. Men require to be rested, ships to be coaled, boilers to be blown down and cleaned occasionally, the hull to be refitted every six months. Bad weather or mines or torpedoes may cause losses ; the absence of lights may throw the barrage at night into confusion. Think, too, of the enormous preparations essential at Larne, Kingstown, Liverpool, and Milford in respect of stores and dockyard facilities, administration and organization generally. The new Navy was already a gigantic institution, unparalleled in history or imagination. No wonder there was a shortage of officers, guns, and many other requisites too, long before the food became scarce. But of the right, fine, seamanlike, fighting spirit there was no lack. So, too, in the Mediterranean on the eve of the great Gallipoli gamble the trawlers sent out from England had already received their stores, and were leaving Malta for the Dardanelles ready for a very big proposition.

And what about the enemy submarines? Gayer says just what had been suspected. The U-boats, having learnt to negotiate the Dover Straits, were attempting no new thing by the date the blockade began. They used to lie on the bottom of the sea north of the Ruytingen Bank and there wait till the tide was suitable, if they wished to pass by daylight submerged. Otherwise they went through the Straits

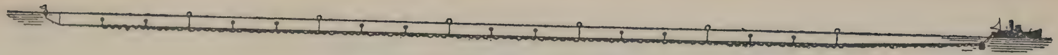


FIG. 3.—NET DRIFTER TOWING NET.

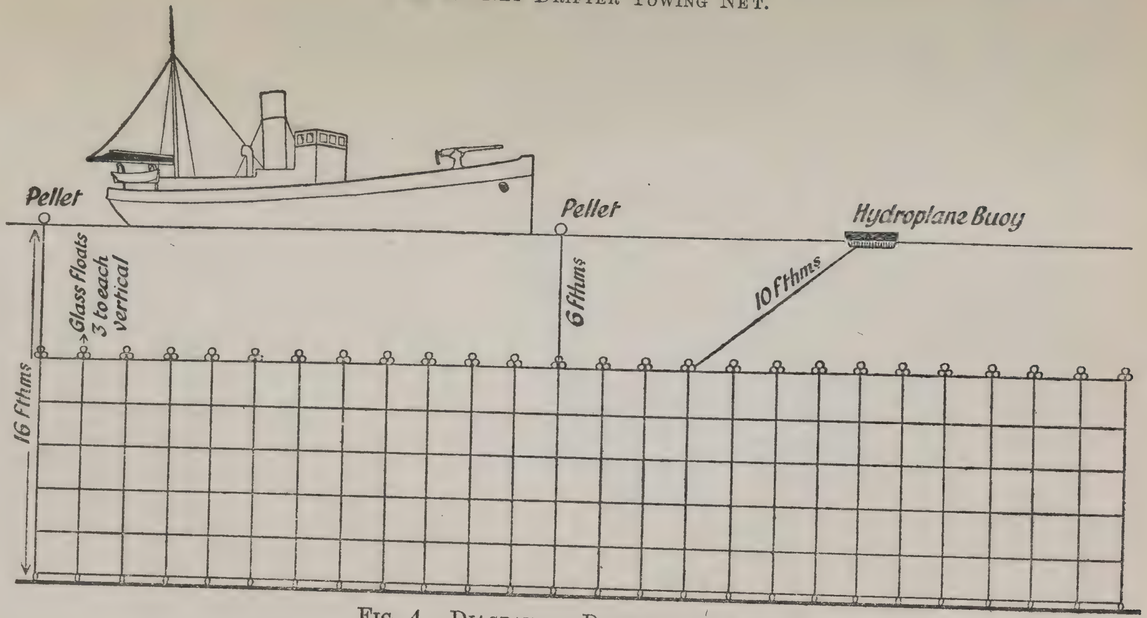

Pellet
Glass floats
3 to each
vertical
16 fthms
Pellet
6 fthms
Hydroplane Buoy
10 fthms

FIG. 4.—DIAGRAM OF DRIFTER AND NETS.

The illustration shows how the nets were supported, and the method of using indicator buoys.

on the surface by night. The British mines, he says, scarcely hindered them, as they were mostly on the surface, could be avoided, and the firing mechanism was not good. It amazed the Germans that for so long the Dover Straits remained passable.

Gayer considers the date for the commencement of the submarine blockade badly chosen; for only U 8 was ready to sail on the day, though U 30 was already on her way and inaugurated the campaign by sinking on February 20 the British S.S. *Cambank* (3,112 tons) ten miles east of Point Lynas in the Liverpool district. It was not till February 25 that U 20 (Lieut.-Commander Schweiger, notorious as having afterwards sunk the *Lusitania*), and U 27 (Lieut.-Commander Wegener) were able to leave the Ems and carry out the blockade. The former proceeded through the Dover Straits to the Irish Sea. The latter went right round the North of Scotland to the Irish Sea. U 8 started from Heligoland, got safely through the Dover Straits, but came to a tragic end.

For on March 4 about 1 p.m. she was sighted by the destroyer *Viking* five miles E.N.E. of the north-east Varne Buoy, the sea being calm and the weather inclined to be foggy. But the drifter *Robur* had already at 12.30 p.m., while watching her nets, noticed a line of five pellets proceeding *against* the tide at four knots. That was pretty good evidence that a submarine had for once got foul. The *Robur's* skipper informed the destroyer *Cossack* that something had been seen in a drifter's nets six miles N.E. of the north-east Varne Buoy. A hot destroyer hunt went on throughout the afternoon, by *Viking* and others, and at five o'clock the destroyer *Gurkha* fired her explosive sweep close to the course of a periscope which had been sighted. Half a minute later up came the stern of U 8, and then *Gurkha* and destroyer *Maori* shelled the conning tower. Several Germans then appeared on deck holding up their hands in surrender. The submarine presently sank, but all hands were rescued and taken prisoners.

Directly, then, U 8 was bagged by the destroyers. But the drifters with their nets had caused her first to be entangled and thus to reveal herself. The Admiralty took the view that the crews of the trawlers and drifters engaged in the hunt had contributed to the destruction of the submarine, and awarded them the sum of £500 to be distributed. This incident certainly proved that the nets were a real obstacle in this particular case, and it was responsible not merely for increased keenness among the Auxiliary Patrol but for a greater belief in the nets than was to be justified by later events, although it is certain that on more than one occasion submarines did get foul of nets. But the German reply to our nets was to fit a device resembling the teeth of a saw on the fore deck with which to cut their way through. This was fitted not merely to the small craft, but to those over two hundred feet long; and I recollect one being seen off Brow Head, near the Fastnet, at a later date.

The spring of 1915, then, saw the nets in working order across the Dover Straits, the North Channel, and St. George's Channel too. A barrage was also laid across the Downs. There was still a shortage of drifter hands and of guns; and the removal of all these craft and men was beginning to be felt seriously in the fishing industry. A commencement was made, too, with the installation of microphones, better known as hydrophones, for the purpose of listening for submarines. But it was to be a long time before these were universally or effectively used. It is important however, to mention them at this date as showing the beginning of a new anti-submarine method that was to become of the highest importance.

It was on March 10 that the next submarine was sunk, and this again was the result of the fine co-operation between the Auxiliary Patrol and our destroyers. For four days U 12 was hunted by patrol yachts and trawlers off the east coast of Scotland. And then on the day mentioned she was located and rammed by the destroyer *Ariel* outside the Firth of Forth and sunk. This incident caused tremendous enthusiasm. I had the good-fortune to be on the Forth at the time and watched the *Ariel* returning in the afternoon to Leith. She was considerably damaged at the bow by the impact of ramming, and her stern was high out of the water. But it was a moving scene with the wharves lined by seamen cheering as the destroyer captain in duffle-suit on his bridge watched the couple of tugs waltzing her in to the dock to be repaired. Admiral Lowry, Commander-in-Chief of Scotland, was most enthusiastic over the work of the Auxiliary Patrol in contributing to the destruction of U 12, and the local fishing trawlers had also co-operated by their information, for which they were suitably rewarded.

Gayer tells us that U 12 was operating between Peterhead and St. Abb's Head. I remember at the time the particular pains which *Ariel's* captain took to rescue all the available crew. It is common knowledge that the U-boats usually carried a 'War Pilot' —that is to say, an officer of the German Mercantile Marine. He was an expert of the particular locality to which the submarine was allocated, having traded there in peace-time. He knew not merely the coast but the types of fishing craft to be met with in that neighbourhood; he knew the harbour entrances, and was generally a valuable acquisition. Before coming into Leith *Ariel's* prisoners had been transferred, and they were presently brought ashore. But Gayer says that among them was a war pilot, an ex-mercantile officer named Volckner, and after several months he escaped from his prison-camp, reached the east coast of England, obtained a sailing-boat, started off in her to cross the North Sea, and in September fell in with U 16 who brought him safely back to Heligoland.

But we must leave the North Sea for a while and watch those trawlers which had been sent out to the Dardanelles. It was on February 19, 1915, that the first shot in that campaign was fired. Originally intended as a purely diversionary operation, the Dardanelles campaign, as everyone knows, became an immense undertaking. The military deadlock in France, and the halting of the Russian Army, gave it an importance that had never been intended. Our concern is solely with the Auxiliary Patrol ships, but we shall see that this campaign put a still further strain on the new Navy, monopolizing ships and men in tremendous numbers, not merely in respect of mine-sweeping, but because presently the Germans realized one highly important fact. This was that if the Dardanelles gamble succeeded, the result for them would be most serious. They therefore wisely began sending submarines to cut the Army's sea lines of communication; in other words, they were determined to sink our transports. This decision, in turn, made additional work for the new Navy, and so the demands went on until our yachts, trawlers, drifters, and motor craft in the Mediterranean reached very large figures. But even before this the auxiliary vessels had become essential to the old Navy and to the Army at the Gallipoli Peninsula.

It was in January that Admiral Carden had asked for mine-sweepers to be sent out. On the 28th the first thirteen trawlers left England, and by February 21 the whole fleet of twenty-one trawlers reached Malta and then proceeded East. But already by the 15th four had left Malta for the Dardanelles and four two days later. The plan of operations at the Dardanelles included reducing the defences at the entrance to the straits and sweeping up the minefields, and the Commander-in-Chief was entirely dependent on these fishing craft to allow his bombarding ships to operate in safety when once inside. Sweeping was begun on the 19th to within 5,000 yards of Gaba Tepe, but no mines were found, and the channel was buoyed for the big ships. Bad weather then interrupted the bombardment until February 25, and the mine-sweeping trawlers covered by two battleships and half a dozen destroyers swept the entrance during the night but found no mines. Next day the battleships were thus able to enter the straits and shell the forts, and during the ensuing night the trawlers went inside the straits and swept a distance of four miles from the entrance, no mines being found.

Thus, so far, the trawlers had been able to do excellent work in their auxiliary capacity. The battleships were relying on the fishing craft. What a change from pre-war conditions, when trawlers looked to the Royal Navy for protection! On the 27th and 28th a north-east gale interfered with the Dardanelles operations, but on March 1 they were again resumed. During the night the trawlers, covered by destroyers, swept to within 3,000 yards of Cape Kephez, performing excellent work in the moonlight. But the enemy's batteries opened fire when abreast of the Suandere River and the trawler skippers retired, destroyers covering their withdrawal by making a smoke screen. Fortunately no vessels were hit.

On the next day the bombardment was renewed by the battleships, and at night the trawlers continued their attack on the Kephez minefield, but could make no progress owing to the fire of the enemy's battery. During the night of March 6-7 the trawlers again tried to sweep the Kephez minefield, but came under fire from the Narrows. It was a veritable dilemma, for they could not sweep by daylight owing to the enemy's field guns, and by night the searchlights lit them up and afforded good targets for the hostile batteries.

In order properly to appreciate the conditions it is necessary to put yourself in the place of these trawlermen. To most, if not all, this was the first occasion on which they had ever heard a gun go off. They were just ordinary North Sea fishermen from Grimsby, Aberdeen, and elsewhere. At a moment's notice they had suddenly been sent to the Mediterranean, to bear the initial responsibility of a big campaign. For the first time in their lives they were ordered to sweep at night, which in itself is not easy, but with each side of the Dardanelles lined by guns and powerful searchlights, and deadly minefields in the middle, it was a really big proposition. Between the Suandere River and Chanak were no fewer than ten minefields, and the searchlights were so excellently placed that they commanded these fields. It will at once be appreciated that to sweep up these fields was an utter impossibility. It was a vicious circle, if you examine it. For the battleships could

LEGISLATIVE

not advance and silence the batteries and forts until the trawlers had swept up the mines. And the trawlers were unable to sweep the mines because of the forts and batteries. The result was, therefore, a foregone conclusion. Before long a deadlock must ensue. Only troops could have solved the difficulty by an attack on the guns from land.

During the night of March 8-9 trawlers and picket-boats made a further effort, but were fired on as usual. On the following night three trawlers and two picket-boats with explosive creeps tried to clear the Kephez minefield, but, as soon as they came within the enemy's searchlights, operations were impossible. On the subsequent night seven trawlers and two picket-boats with explosive creeps once more tried. Now the speed of the newest and best trawlers in those days, even with a clean bottom and engines in perfect condition, was never more than about ten or eleven knots. The average worked out at nearer nine when on patrol. But a pair of trawlers joined together by the sweep being towed would be able to do not more than about four knots. The current off Kephez runs at about three or four knots, and it was therefore found that with the sweeps out the trawlers could hardly make headway.

On the night of March 10-11 the trawlers, therefore, endeavoured to get to the north of the minefield, then connect sweeps, and start sweeping down with the stream. This they did, and as soon as the sweeps were got out two mines were caught by the first pair of trawlers. Both mines exploded in the dark waters and blew up the trawler *Manx Hero*, though all the crew were picked up. The enemy then switched on his powerful searchlights and all craft came under a violent fire. H.M.S. *Canopus* endeavoured to extinguish the searchlights, but could not succeed. Two mine-sweepers were struck, two men injured, and the fishermen of the second and third pair of trawlers were too agitated by the heavy fire to run a proper sweep; so little was effected, and under cover of the destroyers they retired.

It is easy enough to criticize the fishermen, but who will dare to blame them? To stick it out sweeping at night through the middle of a minefield in a strong tideway under searchlights and 6-inch shells, with one trawler already gone, is an operation that should never have been attempted except by men who had learned through long years the meaning of discipline. Mr. Kipling has recently shown what the discipline of the Irish Guards meant in those dark days in France. A North Sea fisherman knew nothing of discipline; he was independent and self-reliant by nature and livelihood, and as plucky as any man in any service. But less brave and more disciplined men than trawler hands might have stuck it out a very little longer, though it could not be for long.

On the night of the 11th six more trawlers tried to achieve what the other group had failed to accomplish, but when the searchlights and batteries concentrated on them the leading trawler turned and steamed back down the Dardanelles, followed by the others. On the next night the French sweepers had a try, but they could not steam against the current, and retired after being hit. Officers and men to steady the fishermen were then placed aboard the trawlers. It was recognized that trawler skippers and crews had no fear of mines, but the shell fire unnerved them.

On the night of the 13th, with volunteer officers of the Royal Navy and Royal Naval Reserve, attended by picket-boats, and escorted by H.M.S. *Amethyst* and destroyers, the trawlers entered the minefield after H.M.S. *Cornwallis* had bombarded the lights and batteries for a whole hour. The trawlers set forth in a still, cold, dark, clear night, and before they were discovered had passed Fort 7. Searchlights lit them up and shells started flying as before.

'Close to the Narrows the trawlers bunched in attempting to get out their sweeps, and came under an accurate fire. . . . Five of the trawlers were coming down at full speed, having been prevented by casualties from getting out their sweeps at all. Only one pair had any success.'* The trawlers were so badly shelled that on board two of them every man was either killed or wounded. Owing to damage done to winches and gear not more than one pair of trawlers ever swept that night. A few mines were destroyed, but four trawlers and one picket-boat were put out of action, twenty-seven men were killed and forty-five wounded in the whole operation, the *Amethyst* herself 'floating like a wounded sea-bird' and making a signal, 'Am in great need of medical help. Send as many cots as possible.'* Thus, even with professional help, the trawlers had been unable to achieve the impossible.

But the value of these craft had been so demonstrated that more of them were now ordered out from home. In the meanwhile the greatest efforts were made to clear these fields, the trawlers in these attempts becoming scattered, getting ashore, being shelled. On the 18th, destroyers tried sweeping ahead of the fleet by day, and were, of course, received by a withering fire. That same afternoon half a dozen of our trawlers tried again. One pair got out their sweeps, but owing to the hot fire from howitzers and field guns was unable to proceed.

---

* 'The Immortal Gamble, and the part played in it by H.M.S. *Cornwallis*,' by Commander A. T. Stewart, R.N., and the Rev. C. J. E. Peshall, B.A., R.N. London, 1917.

CHAPTER VI

AT THE DARDANELLES AND ELSEWHERE

THE character of the campaign at the Dardanelles was now to undergo a complete change, and instead of it being a mere naval diversion, it was to become a combined naval and military operation on a big scale. It was realized that before the capital ships could pass through, the Gallipoli Peninsula would have to be held by a land force. Gunfire of ships could not destroy the forts, as the plain lesson laid down in the seventh chapter of Admiral Mahan's classic volume on 'Naval Strategy' had been amply proved. 'Ships are unequally matched against forts. . . . A ship can no more stand up against a fort costing the same money than the fort could run a race with the ship.'

And yet it needed the great Dardanelles gamble to bring this elementary principle home, with the loss of valuable ships, lives, and serious wounds to other ships and men. In the meanwhile, during the lull, when preparations were being made for the new phase, the training of the mine-sweeping vessels went on. The fact was that the mines were a much bigger job than had been anticipated. And just the same problem was to be discovered at Smyrna.

For, at the beginning of March, it became necessary to bombard the Smyrna forts so that the harbour could be blocked and prevented from becoming a base for submarines that would certainly be tempted towards the Dardanelles. But battleships that were sent to Smyrna required a channel first to be swept of mines. And so soon as the trawlers got to work, the enemy's batteries revealed themselves and poured forth such an accurate fire that the trawlers had to be withdrawn. Thus the old dilemma came up again. The minefields would first have to be swept up before the bombarding squadron could manœuvre and fire at short range on the batteries. But the mine-sweepers could not work by day owing to the Smyrna batteries' accurate fire, and they could not sweep at night because it was impossible to extinguish the searchlights.

It is true that a certain length of channel was swept, but the mine-sweeping trawler *Okino* struck a mine and foundered with the loss of ten men, only five being saved. At the Dardanelles the trawlers continued their work inside the straits, one trawler being struck by shrapnel and three of her crew being wounded, another trawler being shot through the funnel. By the beginning of April, of the original twenty-one trawlers that had been sent out from home, only seventeen were now available, and these had either volunteer or Royal Naval crews on board. But it was now decided that mine-sweeping inside the straits should be discontinued. The results did not justify the risks to the ships from the enemy's fire. For the first four days of April showed that as soon as the trawlers got inside the straits fire was opened on them by the batteries, which could not be silenced even by our battleships. Shots fell all round the trawlers throughout the entire operation, but they gallantly carried on till orders came for it to be discontinued.

On April 25, 1915, there followed the historic landing of the Army on Gallipoli. In this operation trawlers were again to be found essential. Thus at the landing on the southern side of Gallipoli fourteen trawlers were employed. At Y beach the King's Own Scottish Borderers were transferred from the transports to four trawlers who proceeded in line abreast, towing alongside boats to the beach until the trawlers were allowed to ground, the troops then entering the boats and pulling ashore. Four more trawlers carrying Royal Marines followed astern. At W beach a couple of trawlers also assisted, and at S beach the South Wales Borderers landed in cutters from four trawlers convoyed by *Cornwallis.* Half a dozen trawlers also swept Xeros Bay at midnight of the 24th-25th under the protection of H.M.S. *Doris,* for here a feint was made of landing.

Thus, as in home waters, the new Navy had begun a strenuous time, and it was a tactful tribute to them that at this stage the Distinguished Service Cross was awarded both to Skipper Alfred Swain of the *Escallonia* and to Skipper Alfred E. Berry of the *Frascati.* These were two Grimsby trawlers that remained from the original twenty-one. Each of these skippers had been constantly under fire, and each still carried on. Before the first fortnight of May was over the advance of the Army was checked; it became apparent that the battleships could never break through, and thus the duty of the old Navy and the new settled down to the routine of supporting the Army. And then came the third phase with the arrival in the Mediterranean of the German submarines.

It was on April 25—the very day of the famous landing on Gallipoli—that the Germans inaugurated yet another submarine voyage of an extremely daring nature, and the reader will not be surprised that the boat was U 21 and her captain Hersing, who had already achieved so much fame. On this day U 21 left the Ems. She proceeded not through the Dover Straits for, as Gayer tells us, the Dover nets had caused U 32 to get foul early that month and to return via the North of Scotland. U 33 also reported that the Dover mines were now more numerous than before in that area. Therefore for a time the big submarines were forbidden to use the Dover Straits, though the Flanders UB and UC class based on Zeebrugge were not affected by this order.

U 21, then, proceeded from the Ems via Fair Island (between the Orkneys and Shetlands) and got through the Straits of Gibraltar 'in the grey light of dawn' about May 6. This was the first German submarine to proceed from home on her own bottom to the Mediterranean ; and it was certainly a remarkable achievement when you consider that she had to go all the way round the British Isles. But Gayer tells a remarkable incident which shows that German efficiency in organization was anything but perfect. Arrangements had been made for this U 21 to be supplied with oil at a rendezvous which I assume to be off the coast of Spain. Actually she was met by a steamer with both the oil fuel and the lubricating oil. After so long a voyage the submarine was badly in need of both. But it was found that someone had blundered : the wrong kind of oil fuel had been sent ! And U 21 just managed to get into Cattaro on May 13 with very little oil left in her tanks.

Cattaro was of course Austrian, and for the rest of the war German submarines used it and Pola as their Mediterranean bases. After refitting his boat and resting his crew, Hersing left again on May 20, proceeded down the Adriatic, then through the Cerigo Channel and the Ægean Archipelago to the Dardanelles, where he caused a veritable sensation by sinking the battleship *Triumph* on May 25 off Ari Burnu, and two days later the *Majestic* off Seddul Bahr. Then on June 5 he entered the Dardanelles and thus arrived at Constantinople, but by the beginning of July he had left Constantinople and torpedoed the French transport *Carthage* off Seddul Bahr. Gayer stresses the point that the Dardanelles was to Germany the centre of interest, and she realized that if the Entente had been able to force their way through, the war would have been lost to the Central Powers. In the history of the Auxiliary Patrol it is most important to bear this in mind; for Germany soon sent five submarines to operate from Constantinople against the Entente naval forces and against the Russian sea communications between the Crimea and the Caucasus coast. And by the autumn of 1915 U 21, 33, 34, 35, 38, and 39 had been sent under their own power to the Mediterranean from Germany; UB 1, 3, 7, 8, 14, 15 and UC 12, 13, 14, and 15 were put together at Pola. By the beginning of June UB 8 had certainly reached Constantinople, and during that summer some of the UC boats, says Gayer 'brought the Turks arms and ammunition, which were of the greatest importance.'

The result of this inauguration of the Mediterranean submarine campaign was to increase the need of auxiliary patrol craft both immediately and gradually. For a time, at least, it also weakened those forces in home waters, since vessels equipped for this pressing need had to be found somewhere. On the day that U 21 sank *Triumph*, the British Commander-in-Chief, Admiral de Robeck, shifted his flag to the steam yacht *Triad.* Before the war this interesting pleasure craft was a well-known sight in the Solent. Of 1,416 tons, in design more like a small liner, she was one of the handsomest yachts afloat, and bore some resemblance to the Kaiser's yacht *Hohenzollern* with her two funnels.

One of the results of this Dardanelles submarine phase was the need of watching the indented coast-line of Turkey-in-Asia, and for this purpose some of the Royal Naval Motor-Boat Reserve craft were sent out with R.N.V.R. officers, and performed excellent work. Because the battleships had to retire behind net defences, thirty-one net-drifters and twenty armed trawlers were collected on the south coast of England and sent out as a reply to the submarine menace, and more craft were to follow. By the autumn of 1915 the German Mediterranean submarine campaign became a really serious affair. Some of the most able U-boat captains were already operating; in August the *Mauretania* was attacked south of Mudros, then the *Royal Edward* transport was torpedoed and sunk a few days later in the Ægean, and a whole list of colliers, oil-tankers or transports suffered a similar fate during the next few weeks.

It was because these submarines were passing through the Otranto Straits to their Austrian bases that it was decided to treat this defile as the Dover Straits, North Channel and the St. George's Channel had been protected. We therefore see squadrons of net-drifters being sent out from home, and by the end of September fifty of them had reached Taranto. Thus, with the opening of yet another sphere of naval warfare, there came a still heavier demand on the ships and men of the improvised navy. As for the fishing industry at home, this was becoming crippled, and left chiefly to the old men to carry on.

We shall be able to see further details as we go along, but in order to give the reader a clear view over the diverse and numerous undertakings that required these auxiliary ships, it is convenient here to remind him that the allied troops landed at Salonika in October, 1915, and thus once more trawlers and other craft were in demand. With all these centres of activity, where should we have been had we not possessed a numerous seamanhood from which to draw crews, and a large fleet of peaceable craft from which to commission the ships? It is easier to make a civilian into an army officer than to make him an efficient captain of a sea-going unit. It is because of our seafaring resources that these demands could be met, and at the same time the Mercantile Marine could carry on their own jobs.

During the autumn of 1915 the submarines made determined efforts to cut the lines of communication to the Dardanelles. From September of that year to the following March 1 the U-boat campaign was transferred from the British Isles to the middle sea. The only exception was that the Flemish UC and UB boats operated in our own waters, and that there was a short, temporary spasm for a week about Christmas, 1915, off the Irish coast, by the big U-boats on their way out to the Mediterranean. This temporary lull for several months round the British Isles was owing to diplomatic pressure from the United States. But the use of the UC mine-layers off the south-east ports of England and the employment of the U-boats in the Mediterranean were not likely to embroil Germany in an awkward situation with America. Moreover, for the reason already mentioned by Gayer, it was excellent strategy to concentrate against the Dardanelles becoming a success to the Entente.

Thus the transport sinkings in the Ægean neighbourhood and elsewhere continued through the autumn and winter of 1915-16, and the *Olympic* herself had a narrow escape. But on all the traffic routes from Gibraltar to Malta, the Ægean and Egypt, a dead set was being made at our craft, and the losses to our Mercantile Marine were mounting up to big figures. Such, then, was the position abroad with regard to the Auxiliary Patrol. We can now go back to see what was happening in the waters around the British Isles.

The first time that a German submarine appeared off the west of Ireland was in the middle of March, 1915, when the S.S. *Atalanta* was attacked and set on fire. The incident was ominous; it showed that the affair of U 21 bursting into the Irish Sea was no mere isolated adventure. In fact, as the reader is now well aware, the U-boat campaign is that of a new vessel feeling her way, and getting further and further from her base. In March, Weddigen (who in U 9 had sunk the three *Cressys*) was himself sunk in U 29 by H.M.S. *Dreadnought* in the North Sea. U 34 and U 35 got through the Dover Straits safely. On the east coast, the effect of trawlers being sent to the Dardanelles was to prevent the sweeping of the Channel from the Downs being as well done as it needed, until more trawlers could be commissioned from the fishing fleets. From as far north as Aberdeen and Lowestoft, and as far west as Milford, drifters for the Dardanelles were collected and presently sent out.

Meanwhile the sweepers were kept busy at their job, and sometimes there was an extra spice in their work. Lieutenant-Commander W. H. Hawthorn, R.N.R., in the trawler *Columbia*, for instance, was told to go and find a German mine and bring it home, as the Admiralty wanted another to examine. He went and swept in a field off the east coast, soon got a mine in his sweep, towed it into shallow water without it going off, and then lowered his boat. Having made fast the boat to the mine, he brought the latter alongside the trawler, hoisted the dangerous object on his derrick, and came into port with this terrible thing swinging about in triumph. Another officer, Lieutenant Sir James Domville, then came off, unscrewed the horns, removed the acid tubes, packed the thing up and sent it to the Admiralty. Lieutenant-Commander Stuart Garnett, R.N.R., from the yacht *Sagitta*, which had replaced the *Zarefah*, performed an equally plucky act. Having lowered a boat, he went with three others towards a mine, then dived overboard and cut the wires securing the mine. A line was then passed through the lifting lug, the heavy object was hoisted out of the water, detonator disconnected, and then the mechanism taken to pieces. Like the others, it was found to be a beautiful piece of work.

It was this *Sagitta* Cambridge crew, in their blue-jacket rig, which puzzled both officers and men of the regular service, with most amusing results. One dockyard ‘matey,’ on hearing a certain member's voice, turned to another of *Sagitta's* crew and volunteered the opinion: ‘I reckon that bloke was a toff once.’ The incident was typical of the wonderful and mixed crowd of men who were at sea in the great adventure. Before the end of April, Rear-Admiral R. H. Bacon had relieved Rear-Admiral Hood in command at Dover; the popular excursion paddle-steamer *Clacton Belle* and other craft had found themselves hard at work mine-sweeping; a hundred drifters were working out of Poole; and the whole Auxiliary Patrol numbered nearly a thousand craft. It was already a wonderful Navy. An Auxiliary Patrol base was now started at the Scillies, and Falmouth had become quite important as a base, for shipping was being torpedoed off the western end of the English Channel, where any enterprising submarine could pretty well rely on making a good haul.

May Day, 1915, was to give proof of trawler tenacity and bravery in a close engagement that was reminiscent of the olden days during the Anglo-French wars. Four armed trawlers, the *Barbados* (Lieutenant Sir James Domville, Bt., R.N., mentioned above, who, after the war, met a tragic death in London), *Columbia* (Lieutenant-Commander W. H. Hawthorn, R.N.R.), the hero of the above-mentioned mine incident), the *Miura* (Sub-Lieutenant L. W. Kersley, R.N.R.), and the *Chirsit* (Sub-Lieutenant A. Stableford, R.N.R.) had been sent to patrol a long way out in the North Sea. During the forenoon the *Columbia* had been attacked by a torpedo off the Thornton Ridge, and about three in the afternoon Hawthorn's ship was about four miles W.N.W. of the North Hinder lightship with the other three trawlers, looking for this submarine. Suddenly, from Zeebrugge, there appeared a couple of small torpedo-boats, who immediately attacked. The first torpedo, fired by the leading ship, missed *Columbia*. Domville, in *Barbados*, opened fire with his gun, but a second torpedo struck *Columbia*, so that she sank. Two torpedoes were fired at *Barbados*, but missed. The enemy then maintained a heavy fire with his guns, but by this time *Chirsit* and *Miura* had commenced to fire at long range. One of the torpedo-boats now made off towards *Chirsit.* The three trawlers fought very gallantly against the better-armed and more mobile craft, but the *Barbados* had already received heavy punishment. Domville's fisherman skipper was wounded at the beginning, and Domville himself was continually hit by splinters, which several times knocked him down; in fact, the enemy were using the trawler's wheelhouse as a target.

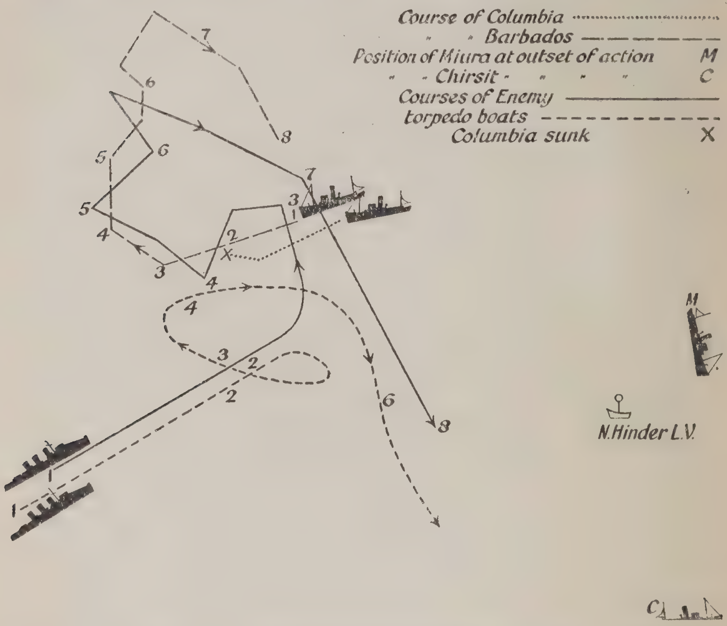

Course of Columbia
" " Barbados
Position of Miura at outset of action M
" " Chirsit " " " C
Courses of Enemy
torpedo boats
Columbia sunk X
1
2
3
4
5
6
7
8
X
M
N.Hinder L.V.
C

Fig. 5.—Plan to illustrate Engagement of May 1, 1915.

The numbers show the respective positions.

After twenty minutes of this the torpedo-boat increased the range to twelve hundred yards, but then a good deal of steam was seen to be pouring from the torpedo-boat and presently she stopped.

Domville then closed her, but she and her sister ship then broke off the engagement and made off towards Flanders. It is, therefore, not too much to claim for the slow-moving trawlers a victory on this occasion. *Barbados* searched the position where *Columbia* had sunk, but learned that only one survivor had been picked up by *Miura*. The excellent firing of *Barbados*' 3-pounder by Petty Officer A. H. Hallett, of the Royal Fleet Reserve, the fine work of the engine-room and deckhands, and the long-range firing by *Miura* and *Chirsit*, had prevented a total disaster.

But now there appeared in the distance a division of our 'L' class destroyers from Harwich. By firing guns and blowing sirens the trawlers attracted the former's attention, who promptly gave chase and sank the two torpedo-boats the same afternoon. Thus revenge came very quickly. The Admiralty announced publicly after this engagement that forty-four of the fifty-nine German officers and men were picked up by our destroyers, but that German prisoners stated they had picked up 'a two-striped officer' and a couple of men between the trawler engagement and the destroyer attack. When asked what had become of these three, the reply was that they had been put below. 'It must therefore be concluded that the officer and two men have perished.' Hawthorn thus went down in one of the torpedo-boats. He was a great loss to the Auxiliary Patrol, both as a plucky character and a most hard-working officer. At the beginning of the war he had come over from Canada at his own expense to volunteer. He had then been constantly employed in dangerous work, and had splendidly co-operated with Domville patrolling off the East Anglian coast.

That same afternoon UB 6 torpedoed and sank the destroyer *Recruit* near the Galloper Lightship. This was the first time the newly formed Flanders submarine flotilla sank a warship, and it shows the beginning of much east coast activity on the part of the smaller submarines, whilst the bigger U-boats were soon to be busy in the Mediterranean. There began, too, this summer numerous and deadly attacks by submarines on our North Sea fishing craft, even as far up as the north of Scotland. To protect the fishing fleet, armed patrol trawlers and the yacht *Eileen* were sent to the Dogger Bank in May, and for the rest of the war these sporadic attacks were a feature of the summer warfare, necessitating additional work for the Auxiliary Patrol. During this first month of May submarines had already accounted for twenty-two of our fishing craft, and heavier losses were to follow when the submarines became more numerous.

But May 7 will always be remembered as the day when Lieutenant-Commander Schwieger in U 20 sank the *Lusitania*. According to Gayer, Schwieger had left Borkum Roads in the morning of April 30. Up till this incident enemy submarines had been sighted so very rarely in Irish waters that the patrols were weak. But the Auxiliary Patrol craft certainly were the means of saving many lives after the disaster. At the time of the incident several patrol trawlers and an armed yacht were in port coaling or making good defects. It was in the early afternoon that the news of *Lusitania's* distress reached Queenstown, and the trawlers *Brock*, *Bradford*, *Bluebell*, *Sarba*, *Indian Empire*, and the drifter *Golden Effort*, all of the Auxiliary Patrol, were sent out and reached the scene between the Old Head of Kinsale and Gally Head. *Indian Empire* actually brought in most of two hundred survivors. Auxiliary Patrol vessels based on Berehaven and operating off the south-west corner of Ireland were that day searching for a reported submarine in their area. And between Mizen Head and Carnsore Point there were less than a dozen trawlers spread out along the south coast.

But, as one who has reason to know intimately all these ships and that coast in war-time, it is only fair to remark how utterly helpless we were in those days against submarines. Even a hundred patrol craft along that area at that period would have found it impossible to guarantee immunity to *Lusitania*, for the patrol craft could do nothing but keep a smart look-out and fire at anything resembling a submarine. For this reason porpoises, small whales, and other inhabitants of the Atlantic, were constantly being reported as U-boats, especially in calm weather. One of these creatures off Daunt's Rock Lightship once puzzled me for a long time, and, his fin just showing above the water, for all the world resembled the top of a conning tower. It was not until hydrophones and hunting flotillas were introduced that the Auxiliary Patrol had a fair chance of locating the ubiquitous and submersible enemy, who could disappear from sight as soon as you saw him.

It is certain that a submarine had been operating off the south Irish coast for a few days prior to *Lusitania*. On May 5 the sailing vessel *Earl of Lathom* was sunk off the Old Head of Kinsale very near to where *Lusitania* was sunk on the 7th. On the 6th the two steamers *Candidate* and *Centurion* (each of nearly six thousand tons) were torpedoed off the south-eastern Irish coast. The only Auxiliary Patrol vessel near Queenstown with wireless at the time of the disaster was the trawler *Indian Empire*.

All this we know as facts. Ireland was a great place for rumours, and it is impossible definitely to trace the course of U 20 after the incident. There is reason to believe that she and one other submarine were seen the following day in a secluded corner of that lonely, sparsely inhabited Dunmanus Bay. Some time later I was sent specially to investigate this rumour on the spot; and whilst we cannot absolutely believe it, the story seems probable, especially as one submarine seems to have been operating off the east end as well as U 20 off the western end of the south Irish coast. Schwieger is dead, having fittingly been destroyed in U 88 by one of the Queenstown Q-ships in 1917.

The effect of U 20 sinking *Lusitania* was to give to the Irish command an importance which it had never previously possessed, and by July Vice-Admiral Sir Lewis Bayly, K.C.B., hoisted his flag at Queenstown, and thoroughly reorganized the patrol forces. There were all too few craft available, but a flotilla of sloops (newly built as fleet sweepers, but actually used for patrol and sweeping as required) began to guard the trade routes where they converged on the Irish coast; armed trawlers patrolled inside of the sloops; net-drifters now shot their nets in likely bays, waited and hoped; whilst motor-boats with R.N.V.R. officers patrolled the numerous bays, creeks, and inlets which are a feature of south-west Ireland, and might be used by lurking submarines. The motor-boats also had to keep an eye on this lonely coast to prevent the landing of arms and supervise the local fishing craft.

The day after *Lusitania* went down the armed trawler *Limewold*, under command of Skipper C. C. Bond, had an engagement twenty miles east of Peterhead with a submarine, the latter's shells passing between the trawler's bridge and mast. But after *Limewold's* sixth shot, the enemy dived and made off. The incident was interesting as showing that the enemy was now using his U-boats on the surface as destroyers, and as showing that trawler skippers could put up as good a fight as anyone. The Admiralty appreciated this fact by awarding £100 to the *Limewold.* It is quite possible that the submarine was U 39, for we know from Gayer that she was hereabouts at that time. He says that U 39 when 'a hundred sea miles E.N.E. from the Firth of Forth' attacked our Third Battle Squadron, and on this voyage achieved a submarine record of using her wireless for three hundred and forty miles. It was thus that Headquarters were able to keep in touch with their craft whilst the latter were carrying out operations far from their base.

It was the advent of Italy into the war against Austria and Germany on May 24 that made it possible for steps to be taken in sending out British drifters to the Otranto Straits, and on that very day two of our trawlers in different portions of home waters endeavoured to shell submarines. In the North Sea German aeroplanes would occasionally attack our patrol trawlers with bombs; in the Dover Straits a submarine now and again got foul of the nets; but the enemy was not yet ready for the big campaign which he was to wage against us. He had not finished with mine-laying by surface vessels, for the time was yet to arrive when he could do this with greater stealth and more penetrating effect by means of his underwater craft.

We can now see what had been happening to keep our mine-sweepers so busy, quite apart from the routine duty of maintaining that clear channel up along the east coast.

CHAPTER VII

MINE-SWEEPERS AND MOTOR CRAFT

THE difficulty which we had to contend with was the hidden nature of the warfare. The submarine was rarely seen, but whenever there was a chance the trawlers and other craft went for her regardless of anything else. In regard to the minefields, we had been really extraordinarily lucky to have discovered them as soon as we did, and one of the lessons of this naval war is certainly to allow the fishing fleets the utmost freedom, for, after all, when a trawl is down or deep herring-nets are in the sea, you have the next best operation to actual mine-sweeping.

Some German minefields laid at a distance from our coast were not discovered immediately. Admiral Scheer in his 'Germany's High Sea Fleet in the World War' says that 'two light cruisers went out to lay mines and succeeded in placing a barrier fifty nautical miles from the English coast, close to the mouth of the Humber, presumably in the enemy's outgoing course.' This, of course, was not the Humber minefield of 1914, but two entirely fresh fields laid in January, 1915, which became known to us as the Swarte Bank and Outer Silver Pit fields respectively.

The former was laid off the Swarte Bank, and was discovered not until April, 1915, by a fishing trawler. Thereupon mine-sweeping paddlers and trawlers were sent out, who, as a result of sound reasoning, vivid imagination, and hard, dangerous work, soon found both the direction and extent of this field. Very quickly most of the mines were swept up, and before the summer was ended the whole field had been cleared. Such was the efficiency of our improvised new Navy. The minefield off the Outer Silver Pit was revealed by the fishing trawler *Dovey* blowing up fifty miles E. by S. of the Spurn, with the loss of nine hands including the skipper. This was not so easy a field to define either in extent or direction, and for a long time it was thought to be part of the old Humber minefield of 1914. The result was that other fishing trawlers also blew up.

But there was still a third, and most important, North Sea minefield where we were served splendidly by our fishing craft, otherwise a great disaster might have ensued. If you examine the list of shipping losses presented to the House of Commons after the war, you will find that on the 17th and 18th of May, 1915, four of our fishing trawlers were captured by German torpedo-boats off the Dogger Bank. Here we have an exact repetition of what the enemy did on the night they laid the Humber minefield. I had suspected this to be the case, and since the war this theory has been confirmed by published statements on the part of Germany. Gayer says that on May 17 the cruiser *Hamburg* with two submarines and one destroyer-leader were ordered to take part in an operation of the High Seas Fleet in the North Sea, 'the object of which was to lay a minefield.' He makes it quite clear that the mine-layer was supported by the battle cruisers, and that the main fleet consisted of three squadrons. The battle cruisers were sent on ahead, then came U's 19 and 25 in 'a position which was favourable for the use of the submarines on the appearance of the enemy fleet.' He speaks of this operation as taking place 'in the middle of the North Sea.'

In a sentence, then, the *Hamburg* was supported in full strength, and in order to prevent our Dogger Bank fishing craft from 'giving the show away,' they were captured and their crews taken back prisoners to Germany. But, in spite of that, it was a British fishing trawler which found this field the morning after it had been laid; for up came a newly painted mine in her trawl. Next day this was confirmed by another Grimsby trawler finding a mine in her trawl, then a neutral steamer exploded another mine, and the fishing trawler *Angelo* foundered on a mine. By the 21st the Grimsby mine-sweepers had come out from the Humber, the minefield was soon discovered, and the dangerous area located. Good work? Yes, indeed. For you have only to plot this area on the chart and then draw straight lines to Scapa Flow and May Island, and then sit down and think what would have happened to Admiral Jellicoe's and Admiral Beatty's squadrons if they had got into this area. Where would the bulwark of the British Empire have been? Probably not afloat. It is, indeed, perfectly evident from what we know through Scheer, Gayer, and the published positions of shipping losses, that the Swarte Bank, Outer Silver Pit, and Dogger Bank mines were so laid that they would entrap the Grand Fleet, Commodore Tyrwhitt's Harwich force making north to rendezvous the Grand Fleet (as it did on the occasion of the battle of the Dogger Bank), and also entrap any damaged ships that might be compelled to make the Humber.

Two more minefields were laid that year by German surface ships, and it is convenient to mention them now in order to appreciate the German strategy. At the end of the first week in August the *Meteor* had laid a minefield in the Moray Firth to foul the approach to Cromarty, which was being used by the Grand Fleet ships. To prevent herself being captured by Commodore Tyrwhitt's force, she blew herself up before she could reach Germany. But the minefield was quickly discovered. Various craft foundered, including one of our Auxiliary Patrol trawlers, but, in spite of its wide extent, this dangerous area was tackled and many mines destroyed. Finally, on New Year's Day, 1916, the raider *Möwe* laid a field between Sule Skerry and Cape Wrath which fouled the western approach to the Pentland Firth and caused the loss of the old-fashioned battleship *King Edward VII.* on the 6th.

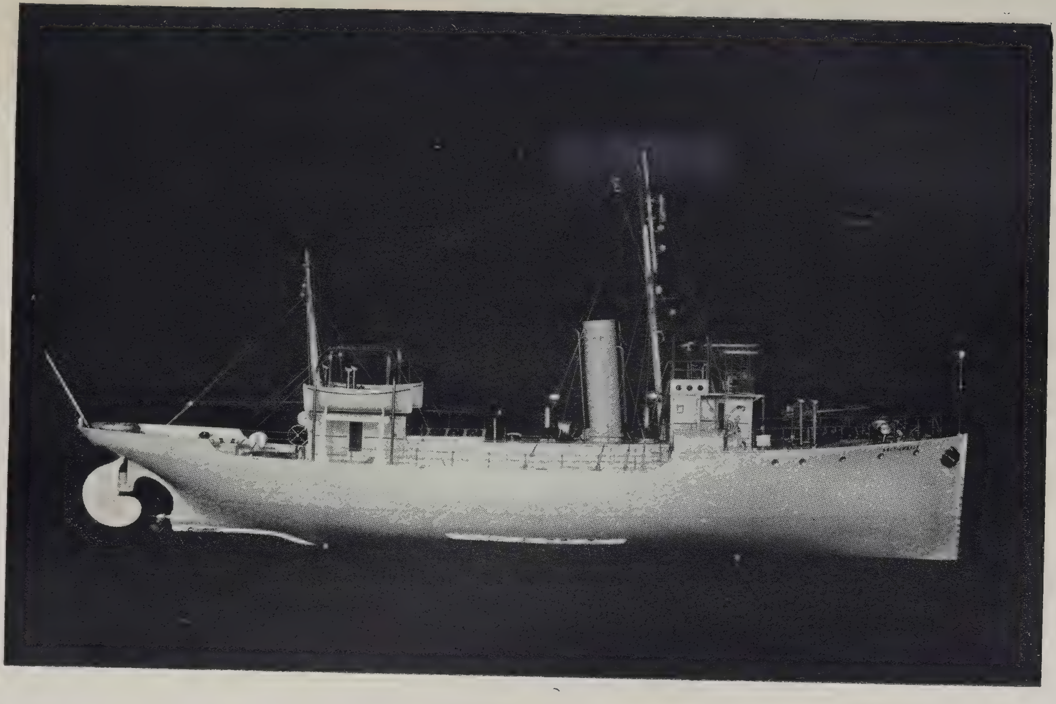
Apart, then, from the regular work of keeping entrances to harbours and the lane of shipping up the North Sea clear of mines, there was always work to be done at short notice by the other sweepers. Ships and men had to be rested and kept in the highest state of efficiency; and both were subject to sudden loss in any minefield. Nothing but excellent organization ashore, and keenness, plus unswerving courage afloat, could ever have rendered the enemy's subtle and well-conceived plans useless as regards their main intention. It was disappointing to him that all these elaborate mine-laying operations should have miscarried, and we cannot blame him for now abandoning the method of laying mines by surface ships and employing the still more subtle method of submarine mine-layers. Actually UC-boats first began in June, 1915, to lay mines round lightships, buoys, off prominent headlands, across channels and elsewhere, that might easily ambush merchant shipping, such as off the Sunk Lightship, in the Thames estuary, off the North Foreland, and so on. Gayer remarks that the minefields laid by surface ships 'had not brought Germany much success, since the neighbourhoods in which they were laid were mostly frequented by many Dutch and English fishing boats. . . . At the request of the leader of the submarines, Admiral von Pohl finally gave up this kind of mine-laying at the end of 1915.'

It became a steady job for the Flanders UC-boats, who came across from Zeebrugge to our east and south-east coast with a cargo of mines, dropped them, went back light to Bruges, filled up, and came out again with the regularity of a coasting steamer. This meant increased work for us in regard to the shipping lane, and still greater vigilance off such entrances as Dover. Owing to the success of these little, easily handled UC mine-layers, the big U-boats were later on constructed to carry not a dozen but thirty such 'eggs.'

One result of the protests arising from the *Lusitania* sinking was that U-boat commanders were forbidden to sink large passenger steamships, though this order does not appear to have been long maintained. The submarines now habitually went round the north of Scotland and down the west coast of Ireland, but during August the submarine menace reached an unprecedented height, no fewer than forty-two British merchantmen being thus sunk, principally in the south-west approaches, where the White Star liner *Arabic* was one of them, and caused a sensation that rivalled the sinking of the *Lusitania*. And yet far less inconvenience was caused to our shipping than might have been expected. I remember crossing from Fishguard to Queenstown two days later and being impressed with the normality that existed in spite of those anxious days, for on the 17th as many as seven British steamers had been sunk between Wales and Ireland. Admiral Dare's armed yachts and drifters were operating between the Tuskar and the Welsh coast, and homeward-bound steamers were being escorted by Auxiliary Patrol vessels. Across the English Channel these craft were patrolling the transport route as well as escorting. In the North Sea the drifters were laying their nets off Aldborough, Kinnaird Head, and elsewhere; whilst the advent of the UB submarines off Lowestoft was additionally met by fitting out disguised armed sailing smacks and sending them out to fish. It was thus that UB 4 was sunk during August; but in that same month we had lost thirty-six fishing vessels to submarines chiefly off Lowestoft, Cromer, and the north-east coast of Scotland.

During September the submarine campaign continued round the British Isles and in the Bay of Biscay; but UC mine-layers were busy off the east coast and as far west as Folkestone, thus holding up the departure of our transports. Losses by mines to shipping of all kinds were inevitable. By October the most expert submarines had reached the Mediterranean, and thus a lull occurred in home waters until Christmas time. It was not until March 4, 1916, that the U-boat campaign as distinct from the mine-laying UC operations was resumed in home waters. In order to assist in organizing the great fleet of Auxiliary Patrol vessels being sent out from England to the Mediterranean, Rear-Admiral Le Marchant was transferred from Kingstown to Malta in December, 1915. It was in January, 1916, that for the first time submarine mine-layers deposited their cargo as far north as off the Humber, and they settled down to laying them off such distant and important localities as the Needles, Havre, Dover, Harwich, the Tongue, Shipwash, Sunk and Galloper Lightships, in fact everywhere that shipping was wont to proceed.

The first instance of enemy mines in the Mediterranean was when they were discovered off Malta in April, 1916, having been laid by submarine, and causing the loss of the old battleship H.M.S. *Russell*, and of the Auxiliary Patrol trawler *Crownsin.* Thus the style of warfare and the method of defence were similar to what was going on round the British Isles. At the Dardanelles, after the famous Suvla landing, the events were monotonous except for the submarine activity already referred to. But this did not mean that the Auxiliary Patrol vessels were having an easy time of it. On the contrary, everyone who was on that Gallipoli Peninsula will tell you that these craft were hard at it—all the time indispensable and tireless. Apart from other craft, there were considerably more than a hundred mine-sweepers, trawlers, and drifters engaged maintaining the communications. Drifters were employed also in patrolling the transport routes in the Ægean, there were trawlers also off Crete, and trawlers also joined with British, French, and Russian cruisers and destroyers and monitors in the bombardment of Dedeagatch. With all these activities—and some of the craft were moved from one theatre to another quite frequently—it would have been nothing surprising if these fishermen had forgotten they had ever been outside the Royal Navy. As one cheery North Sea trawlerman, who had been



THE ‘ARCTIC WHALE’

One of the ‘Whaler’ Class of trawlers built specially during the war for the Auxiliary Patrol.

To face p. 98

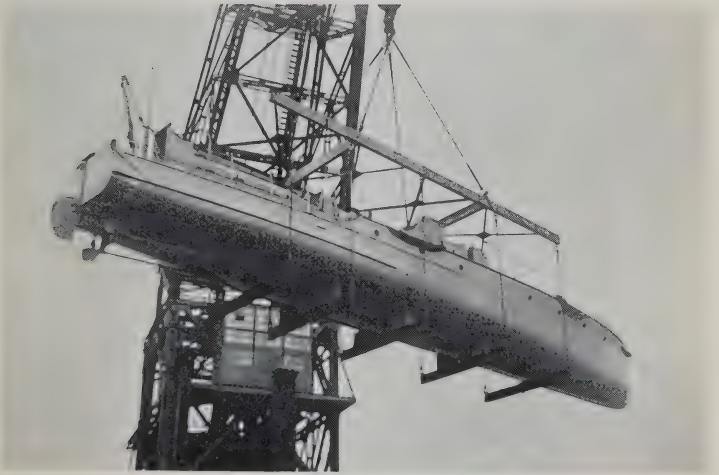
through the Dardanelles mine-sweeping adventure, remarked to one of my friends: ‘If anybody had told me in July, 1914, I’d soon be going to the Mediterranean, I’d ’ve called ’im a falsehood, sir.’

A composite picture of the new Navy at work in the summer of 1915 would include the following. In the English Channel there were the drifters and trawlers and armed yachts off the Cornish coast, the trawlers patrolling parallel with the trade route along the land. Further up channel you would meet with the Devonport contingent, then you would find nine Portland trawlers always at sea patrolling twenty miles south of the line joining St. Catherine’s and Start Points. The Portsmouth Auxiliary Patrol would be seen in the neighbourhood of the Isle of Wight, and off Beachy Head you would sight the first of the Dover trawlers. In the Straits would be the Dover drifters. In the Downs you would soon see the Armed Drifter Squadron, and then there would be mine-sweepers and patrol craft in that long lane right up to the Yorkshire coast, and then more trawlers and armed yachts and fine little drifters practically all the way round the north of Scotland, till you came to that drifter net fleet in the North Channel. Then some more trawlers, perhaps from Liverpool, perhaps an armed yacht or two, and finally that long, mobile barrage from the Tuskar to the Welsh coast. Here and there you would hear a trawler blazing away with his gun at a submarine who dared to show himself.

A special type of large trawler, called a whaler, was built on the east coast. I believe there were over a dozen of them, and they were sent to patrol in such exposed areas as the Stornaway neighbourhood, but they were not found as satisfactory sea boats as the trawlers. The difficulty now was to get any more trawlers at all, for the fishing fleet barely remained. I have shown in my 'Q-Ships and Their Story' how that some of the trawlers were disguised as little coasters and sent out as submarine decoys, and it was the trawler *Princess Louise* which, by towing one of our C-class submarines, connected by tow-rope and telephone, enabled U 23 to be destroyed. It became no unusual thing for trawlers in the lower part of the North Sea to be bombed by enemy aeroplanes, so several trawlers were fitted with anti-aircraft guns. Armed yachts shelled or tried to ram submarines in spite of the former's unhandiness. Trawlers in the North Sea even enjoyed the rare opportunity of firing at Zeppelins, others patrolled for a time with our aeroplanes; others, too, were actually used to help in laying our minefields though at no great distance from the shore. And because of the activity of the UC mine-layers, it became necessary for armed patrol trawlers to be fitted with mine-sweeping gear; for no one knew when and where a little nest of mines might suddenly be found.

There was no question that in some areas, where the yachts were big, they stood the weather better than the destroyers. But the smaller yachts were so lively in a seaway that the deck of a drifter was a far better gun-platform. And then, in addition to purely offensive work, there seemed always to be a steady flow of rescue and salvage duties. Some merchantman would wireless in to the station that she had been damaged by submarine, or that she had been holed by a mine and was sinking with a wounded crew. Out would go the sturdy little trawlers, and while one would try to take her in tow, a second endeavour to steer her at the stern, a third would

M.L. 181
80 feet long, armed with gun and depth charges.



HOISTING AN M.L. OUT OF THE WATER
Showing rudder, propellers, and underwater lines of hull.

To face p. 100

zigzag about her, warding off any lurking submarine. Often enough, to make matters as awkward as possible, the damaged ship would start getting lower in the water, steer as wildly as a mad horse; then the bulkheads would start collapsing, and the falling barometer would indicate that by midnight it would be blowing a gale of wind. But the trawlers would always stick to their job as long as there was a ship to tow and a hawser to pull with. Perhaps by the time the lame duck was dragged inside the boom defence the Port War-Signal station would indicate that a submarine was outside; so before the skipper and crew could get a little honest sleep they were hard at it once more.

The 'flying squadron' of large steam yachts which originally had been employed in the Irish Sea was sent to the Mediterranean in November, 1915, because of the greater submarine activity down there and the consequent need of sea-keeping craft. One or two more yachts were taken up, but by this date there were practically no more left outside the service, and by the time the war was over, thirteen of these craft had been sent to the bottom. But perhaps it was the paddle-steamers which seemed the most surprising success having regard to their previous employment. In the Tory Island minefield; in the Harwich area sweeping up the UC submarine mines; off Dover; in the North Sea minefields, there they were—built for pleasure, but rushing through areas of death and saving endless tonnage and human lives. And then, off the Belgian coast, these apparently unsuitable craft were performing most arduous duties trying to sweep efficiently while aircraft bombed them, submarines tried to torpedo them, and Belgian coast batteries were shelling them. One might almost imagine that straightforward mine-sweeping was a harmless form of amusement in comparison!

It was odd enough to see the well-known tripper Isle of Man paddler *Mona's Isle* now employed to go round the coast laying boom-defence nets. It seemed hardly right that the paddlers *Brighton Queen* and *Duchess of Hamilton* had been sunk by mines, the former off Nieuport and the latter off the Galloper. It was like killing a butterfly with a hammer. As to the motor-boats, they were nosing in and out of all sorts of bays and creeks and estuaries round the British Isles. Several of them had even gone across to France in the hope of helping the Army during that first winter.* They motored up an inland waterway, but their opportunity to make good never occurred, and after their return three of them, which had been built at Southampton for the Turkish Customs, were sent to the Smyrna patrol. Other motor yachts went on the deck of steamers to work from Port Said, others to Malta, and so on.†

And a change came in the administration of these motor craft. Originally controlled by the committee of the R.N.M.B.R. under Admiral Inglefield, this organization was abolished at the end of July, 1915, and the boats were amalgamated with the Yacht Patrol, which became better known as the Auxiliary Patrol. Now it was in that selfsame month that an important decision was come to by the Admiralty. A year of war had gone by, and it had shown that the R.N.V.R. officers could be relied on to perform excellent work; but those small motor yachts which many of them had purchased solely to lend to their country in its time of stress were not suitable to keep the sea, not fast enough to overtake a submarine, and not strong enough—with hardly an exception—to mount even the lightest gun.

---

* See Appendix II.

† See Appendix III.

But these keen yachtsmen were badly needed in the service. They had initiative; they understood the way of a ship on the sea; their education and ability deserved to be employed in better craft. Thus in July the Admiralty resolved to obtain at £8,000 a-piece fifty motor launches (afterwards known as M.L.'s) from North America. The first lot were 75 feet long, though the remaining five hundred were 80 feet. So quick were the first deliveries that by October 14 M.L.'s 1, 2, and 3 were already commissioned at Portsmouth. Thereafter there poured in a steady stream on the decks of Atlantic transports, so that by the summer of 1916 Portsmouth Dockyard counted them by the hundred and seemed to contain very few other craft by comparison. The work of fitting them out, mounting in each a 13-pounder gun, tuning up the twin sets of engines and despatching them with officers and men, was a tremendous business, but it went steadily on until every patrol area was supplied with at least one division. Steps were now taken to pay off the original motor-boats and restore them to their owners, the highest number of these craft plus motor drifters being in September, 1915, when the number reached a hundred and seventy-two.

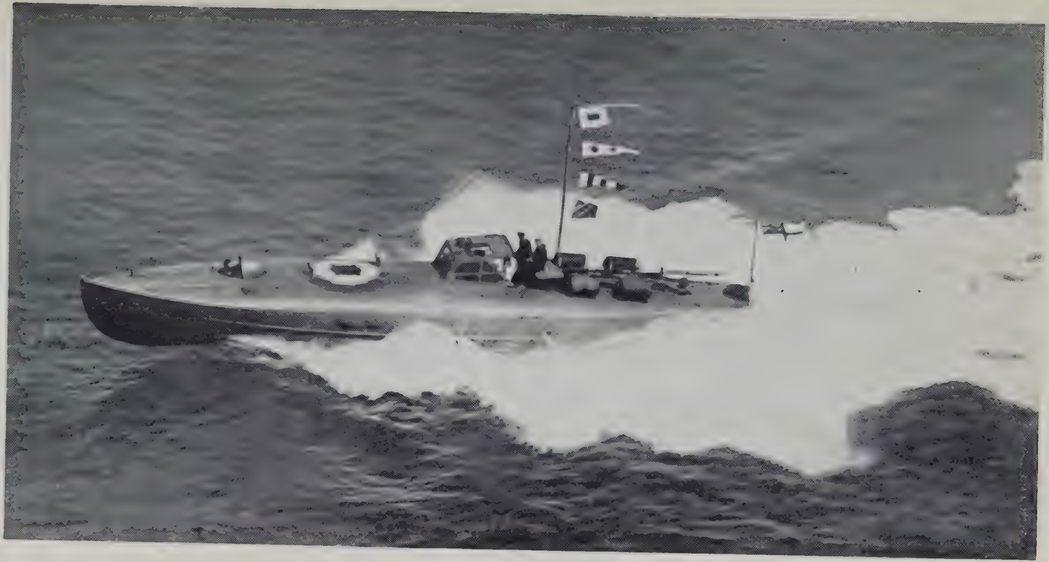
That first year had been most valuable for shaking down to the new life, but now the supply of yachtsmen in the British Isles had practically run dry. Volunteers were therefore obtained from the Overseas Dominions, such as Canada, South Africa, and New Zealand—many of whom had never seen the sea before leaving Canada—and were given a training before being sent in these new M.L.'s. The R.N.V.R. depot-ship at Southampton, known as H.M.S. *Resource*, was destroyed by fire in November, 1915, and its place was taken by H.M.S. *Hermione* in the following month. For these high-powered M.L.'s it became necessary eventually to obtain just under 2,500 skilled mechanics, and gradually as they passed through their instructional classes they were appointed to the boats.

We shall have practical proof presently of the excellent work which this new fleet of M.L.'s was to perform. Before long they were being employed as far apart as the Suez Canal and the West Indies. They swept up minefields, they laid British minefields, they sank submarines, they escorted convoys, they kept the enemy always on the move, and finally earned undying fame in the blocking expeditions off the Belgian coast during the last few months of the war. They kept many a valuable steamer out of minefields, rescued many survivors from sinking ships or derelict open boats, and some of them made quite interesting voyages under their own power from Portsmouth to the Adriatic and Gibraltar via the French canals.*

During the latter part of 1916 the Admiralty had taken up so many trawlers that it was impossible to requisition any more if the fish supply of this country was to continue. And, as the submarine was getting more desperate and we were on the verge of shortage in food, this closing down of an important industry could not be entertained. Therefore the Admiralty ordered 250 trawlers to be built and 150 steam drifters. At a later stage about another 150 more trawlers were also ordered. The whalers had

---

* See Appendix IV.



Coastal Motor-Boat
55 feet long, 750 horse-power, speed 33 knots.

To face p. 104

not been a marked success, but as there was need for a faster type of ship with a radius greater than the trawlers, it was decided to build about eighty so-called patrol gunboats, and these were used chiefly for escorting convoys.

Still another type of craft was introduced into the service in 1916. These were the high-powered coastal motor-boats. Originally they were distinct from the Auxiliary Patrol, but were absorbed into that organization at the beginning of 1918, though in the following June were separated except for the provision of engineer ratings and some of the required officers. There is no question as to the first-class work which these fast little craft performed, chiefly off the Belgian coast. But let the praise come from the side of our late enemy.

'We were particularly worried,' writes Commander E. E. Schulze, whom I have already quoted, 'by the small British motor torpedo-boats (C.M.B.'s), which from the spring of 1917 were more and more in evidence. Their high speed and the difficulty of seeing them made these boats a danger not only to our submarines, which were forced to cruise on the surface in the shallow waters, but to all surface craft as well, and we were therefore compelled to abandon the practice of keeping our destroyers constantly on patrol before the swept channels.'

From about the middle of 1916 the Auxiliary Patrol service developed to the end of the war along the lines indicated. But with newer and improved craft, with newly evolved devices such as the hydrophone and depth charge, and with a personnel that had undergone considerable training plus hard practical experience, this new Navy had become an extraordinarily powerful force. It is to be noted that

LEGISLATIVE

never at any time did it include a large number of active service officers, for with the exception of a very small percentage all were temporary R.N.R. or R.N.V.R. specially entered from the Mercantile Marine, the fishing fleets, the ranks of yachtsmen, or mere lovers of the sea. Similarly the ratings were for the most part taken from the fishing industry, the Mercantile Marine, or the professional hands accustomed to serve in yachts.

CHAPTER VIII

SUBMARINES AND THE AUXILIARY PATROL

We have now been able to comprehend the lines along which the Auxiliary Patrol was destined to develop, and we have seen how far-flung were its activities and organization. It is now possible to fill in this picture with details.

Generally speaking, the Southwold, Tyne, and Humber minefields remained unswept throughout the war, the idea being that they would thus act as a barrage against the enemy. Most seafaring people are aware that fishing vessels in those days were issued by the Government with a little green pamphlet containing particulars of these dangerous areas, which were marked red on an accompanying map. It was essential that these should be distributed, otherwise many more trawlers would have been lost; and anyone who had to look after them in those days will remember how difficult it was to keep them out of the minefields. But it was too much to expect that these maps, defining what we imagined to be the danger limits, would remain secret long. Whenever a fishing trawler was captured it was quite possible that this little book had not been destroyed. Thus it was that the High Seas Fleet at the time of the Scarborough Raid knew their way about the east coast; thus it was, too, that submarines could, by capturing fishing craft, keep the information up to date respecting British and German minefields off our shores, as well as the safe-swept channels.

During the month of June, 1915, U 19 and U 25 between them sank no fewer than twenty-seven trawlers. Thus the enemy was playing havoc in this sphere. From Gayer we know now that UC 11 was the first of the mine-laying submarines to reach Flanders, and that she was sent straight away on a successful mining expedition to the South Goodwins Lightship. Now, with the possession of the maps (occasionally also charts) taken from captured trawlers, German submarine officers were able to compare these red spaces with actual experience. Gayer mentions that U 23 when off the English east coast during the month of May, 1915, established the fact 'that the numerous areas announced by the enemy to be strewn with mines were not so in fact.' Thus the security which we believed in was not wholly true.

Similarly with the obstructions in the Dover Straits. These had now been ascertained by the enemy, so that by June the commanding officer of the Flanders Submarine Flotilla rescinded the April order (forbidding the Dover passage), and UB 6 successfully proved by making the journey through the Straits at night on the surface that the nets were negligible. Within a few days four more of these craft essayed to get through. Two of them succeeded, a third encountered part of the Folkestone-Gris-nez boom (then in course of construction, but afterwards given up), so became frightened and turned back. The fourth had engine trouble, and after eleven days' absence had to be towed home from the Ruytingen Shoal.

It was because of this lack of complete success that the submarines were again forbidden for a while to go west of the eastern entrance to the English

Channel, and that operations were confined to the east and south-east coasts. The same authority pays a tribute to the work of the Auxiliary Patrol by saying that UB 10 found an extremely sharp watch being kept in the Downs by our trawlers night and day, and it was not until the latter part of August, 1915, that a Flanders submarine got through the Straits again, when she went down to Boulogne and laid her cargo of mines off that port. Thus the monotony of our patrols would suddenly become changed to violent activity, but all the time our craft were longing for the opportunity of a fair fight to put their keenness to practical test. On June 5 of this year it came. The scene was off the north-east Scottish coast.

For one of the Peterhead Auxiliary Patrol units happened to be at sea doing their vigilant work as usual. This unit consisted of the five trawlers—*Hawk*, *Oceanic II.*, *Limewold*, *Vigilant*, and *Gull*—commanded by Lieutenant H. J. Ferguson, R.N.R., in *Hawk*. Recollecting that the enemy had been sinking our fishing trawlers, one of these five armed craft was detailed to act as decoy duck, the remaining four keeping not too far away. Lieutenant Ferguson, therefore, ordered *Oceanic II.* to put out her trawl, and arranged to keep her in sight. Just before seven o'clock the morning air was disturbed by the sound of firing, and *Oceanic II.* was seen to be in action with U 14. The trawlers went to their sister's assistance, and within a quarter of an hour *Hawk* had opened fire at two thousand yards, several shots hitting the enemy, around whom the five were now closing. *Hawk*, having closed rapidly, proceeded to ram the submarine between the conning tower and the bow. By half-past seven the enemy had come to the surface mortally wounded, the crew crowding on deck and then taking to the water as U 14 sank. Boats were lowered, and all were picked up except the captain. It had been a smart piece of work, and for this Lieutenant Ferguson, of *Hawk*, and Skipper John Cowie, of *Oceanic II.*, were each awarded the D.S.C., and some of the men received the D.S.M. And there was a heavy financial reward for each of the five trawlers. Less than a month previously *Limewold*, off this coast, had been in action with another submarine, but without result.

In those days, before the introduction of hydrophone hunting flotillas, it is open to consideration whether our auxiliary craft were employed on the soundest principles. The value of yachts and trawlers, slowly steaming along their beat like sea-policemen, lay in the fact that thus a large area was covered, yet at no portion was it strong, except on such occasions as when they kept together to simulate a fishing fleet. The basic idea was really to prevent being surprised: therefore to keep every available craft on patrol. The alternative was to keep the units all ready, fuelled, stored, with steam up so that whenever a submarine had been reported the units could issue forth as a striking force. The difficulty, however, would have been to get trawlers and drifters of 9 or 10 knots to reach quickly the locality where the submarine was reported to be operating. This problem might have been overcome by the use of really seaworthy but high-powered motor craft.

And now there came yet another fresh demand for the services of our new Navy. It was in June, 1915, that the *Meteor* reached the White Sea and laid large minefields in that area, the intention being to interfere with the munitions we were sending into Russia and the cargoes which were coming to us therefrom.

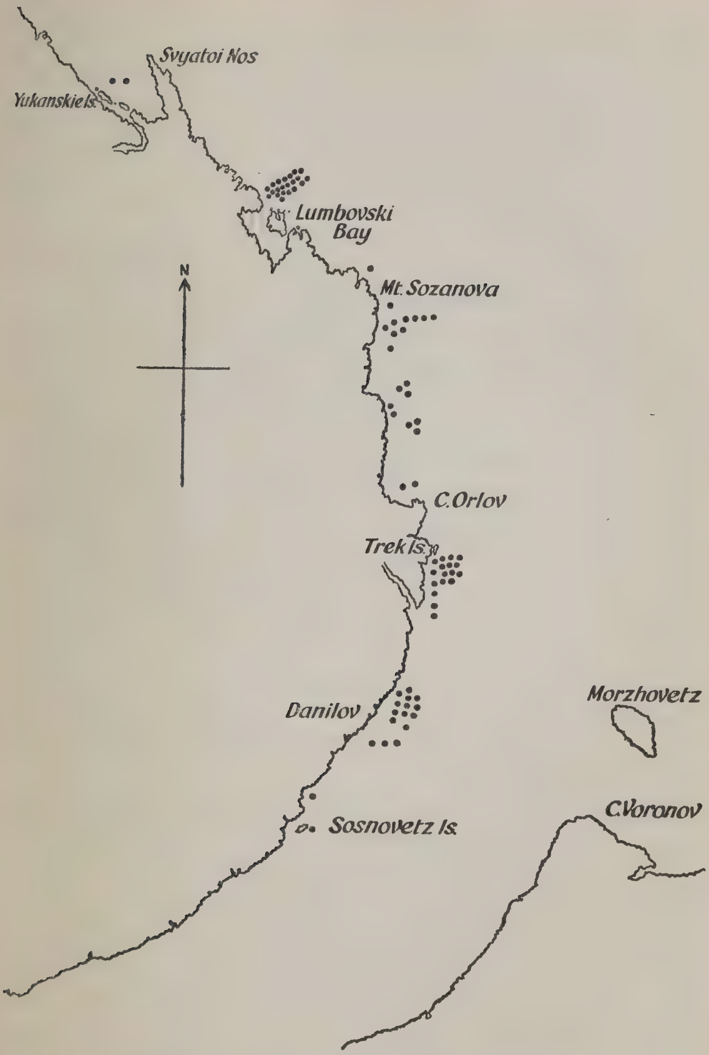

Svyatoi Nos
Yukanskie Is.
Lumbovski Bay
N
Mt. Sozanova
C. Orlov
Trek Is.
Morzhovetz
Danilov
Sosnovetz Is.
C. Voronov

Fig. 6.—Plan of White Sea Minefield.

The first intimation of this field was when the British S.S. *Arndale* (3,583 tons) blew up at the entrance to the White Sea. During that month three more ships blew up and later on other vessels followed the same fate, with the result that the route to Archangel was cut. The Russians were impossible, so the duty fell on our Auxiliary Patrol of getting these mines swept up. Towards the end of June an expedition was therefore fitted out, consisting of six armed trawlers. They left Lowestoft, proceeded north, and a couple of colliers were sent from Immingham to supply them with fuel. These trawlers reached the White Sea early in July and worked incessantly until the following November, when the winter set in and the Gorlo froze over. Under Commander L. A. Bernays, R.N., who had been sweeping up the Tory Island minefield and took the expedition out, these trawlers did magnificent work in spite of Russian dilatoriness and even hindrance. Under the most depressing and dangerous conditions the trawlers toiled to get a safe passage for the steamships and thus restore the means of communication between the two countries. In the following year another trawler expedition was sent from Lowestoft to the White Sea, and resumed sweeping up the mines.

During that summer the subtle co-operation of one of our submarines with one of our trawlers, already mentioned, brought about the destruction of two U-boats, and by bad luck missed doing the same to another couple. But the straightforward, keen duels went on between submarine and trawler. Once again the Peterhead trawlers, while on patrol in July, had another meeting with a U-boat. The *Searanger*, *Cameo*, and *Eastward Ho!* were off the same coast when *Cameo* sighted a submarine, made for her, and informed the others. The enemy began firing with his gun and tried to get round *Cameo's* stern, but Skipper Albert Sayers cleverly outmanœuvred him and opened fire with nothing better than a 3-pounder against the enemy's 3·4-inch plus one other gun. A shell came, struck the *Cameo's* wheelhouse, passed through the steelplating, smashed the upper part of the wheel, and passed out of the open door at the after-side of the wheelhouse. It was a pretty narrow escape from death for Skipper Sayers, who was wounded in his right side and eye, but remained at his post steering with the remainder of the wheel in his hand. A second shot struck *Cameo* on the starboard quarter just above the deck, and a third exploded inside the galley, wrecking it.

Owing to the direction of the wind *Eastward Ho!* heard neither the firing nor *Cameo's* whistle, but saw the splash of the shells, so made for the submarine after the engagement had been going on for a quarter of an hour. But the submarine at once ceased firing, and made off at high speed on the surface. For his plucky conduct Skipper Sayers was awarded a D.S.C., and the gunner a D.S.M. These trawler skippers were imperturbable. There is the story of the minesweeping trawler who was passing a lightship when the latter hailed the skipper, and asked: 'Where ye from, skipper?' 'Been sweeping,' came the reply. This surprised the man in the lightship, as there were no other craft about at the time. 'Where's yer mate? You can't sweep alone.' Back came the response, 'The blighter's been blown up!' Then 'Where yer bound now?' came the further question, to which the skipper answered coolly, 'To fetch another blighter.'

But there were tragic incidents, such as the loss of the armed trawler *Briton* in this same July. She was protecting the unarmed sweepers off the Longsand when she struck a mine. It so happened that most of the crew were below at their evening meal; thus only three were saved. For the ship's stern broke off, the bow went up into the air and was then hidden by a column of water and smoke. When this cleared away there remained of the ship nothing.

The sinking of the White Star liner *Arabic*, on August 19, gave rise to serious quarrels among the German admirals and politicians. Influenced by the fear of complications with America, Bethmann-Hollweg opposed the U-boat warfare, and thus from September 24, 1915, began that period of cessation which lasted till the following March, with the exception of December 20-28.

The 22nd of August (1915) saw the first of those big Auxiliary Patrol operations which were to become such an important feature. For on this day Vice-Admiral Bacon left Dover and next morning bombarded Zeebrugge, having actually with him seventy-nine craft, of which the new Navy composed the greater part. There were the paddle minesweepers from Grimsby, with the yacht *Sagitta*, which met Admiral Bacon's fleet off the Galloper Lightship; there were drifters for laying nets round the bombarding monitors; and another quartette of paddle-sweepers from Dover. Both divisions of paddlers received a dozen salvos, several straddling them. It was because of this continual disturbance off the Flanders coast that the enemy from now on employed UB-boats as advance patrols, and UC-boats mined the narrow passages between the banks off the French and Belgian coasts, so as to thwart our bombarding monitors.

By the end of September, 1915, Germany had the following submarine strength: in the North Sea, 10; Flanders, 15; Pola and Cattaro, 9; Constantinople, 5; Baltic 4. Grand total of only 43 boats. And when you allow for boats being on their way to and from their area, and being laid up for periodical refit, there were really precious few at sea on a selected day. And here we get an interesting sidelight on the interrelation of operations; for on September 6, Admiral Bacon with his five monitors bombarded Ostend. The Grimsby paddlers again swept ahead of the monitors, and were attacked first by enemy aircraft, and then by heavy shells. In both attacks these sweepers had remarkably narrow escapes. 'The assistance rendered by the auxiliary craft,' says the official report, 'was most valuable.' Gayer says that we were constantly appearing off the Belgian coast, and that two submarines had to be kept permanently off Middelkerke and the Thornton Ridge Buoy respectively. 'In consequence of the urgent demand for the B-boats for this purpose, the damage to the enemy shipping tracks had from that time on to be carried out principally by C-boats.'

On September 26 the Dover monitors and auxiliary craft bombarded the low-lying coast of Knocke, Heyst, Zeebrugge, and Blankenberghe. The object was to feign a landing and thereby aid Sir John French, who was about to launch an attack further to the southward. And it was during this demonstration that the armed yacht *Sanda* was sunk by the enemy's gunfire, causing the loss of four officers and eleven men. Her captain was Lieutenant-Commander H. T. Gartside-Tipping, R.N., who had been retired for so many years that on his return at the outbreak of war he became the oldest naval officer afloat. This veteran with undemonstrative patriotism thus died for his country in enemy waters.

It was during these operations that nine net-drifters while boarding their nets were attacked from the shore by fifteen 6-inch shells. So close did they fall to the drifter *Hyacinth* that her deck was drenched with sea. But not this hot fire could prevent Skipper Laurence Scarlett and the mate named T. J. Prior from sticking to their job and getting on board every net before leaving. Admiral Bacon remarked that this skipper's work was worthy of the best traditions of the sea service, more especially as Scarlett's instructions admitted of retiring without the nets. Both skipper and mate were decorated for this bravery, the former with a D.S.C., and the latter with a D.S.M.

But it was in the following spring that the first Belgian coast barrage was laid. During the winter months preparations were made in respect of nets, for the idea was to restrict the movements of the Flanders flotillas to one small channel off West Capelle (Holland). By this means Flanders craft could be attacked at the bottle-neck through which they would have to come and go. Moreover, by means of this barrage the distance of a round trip from Flanders to the English Channel would be lengthened by a hundred and twenty miles. When once the barrage was laid, drifters would keep it in repair, destroyers would protect the drifters, and they in turn could fall back (in the case of attack) on the monitors. And in order to avoid being shelled by enemy shore-batteries, our patrols were to keep outside the known range.

It was not a blockade, because it was not effective. It was not deemed expedient to maintain a night patrol, and the adjacent Dutch waters made matters awkward. Yet the institution of this barrage was a very big operation. It began on April 21, 1916, with the preliminary sweeping of the neighbourhood of the Dyck Lightship by the paddlers, seven in number, and half a dozen mines were destroyed. They were also engaged on the 23rd and following day again sweeping about there. But the actual laying of the nets and mines began on the 24th. The former were laid by four fast vessels, and consisted of a double line. And additional mines were laid by a number of trawlers. To assist the navigation, dan-buoys were laid by drifters and M.L.'s. But besides the mines there were laid mine-nets by the drifters to

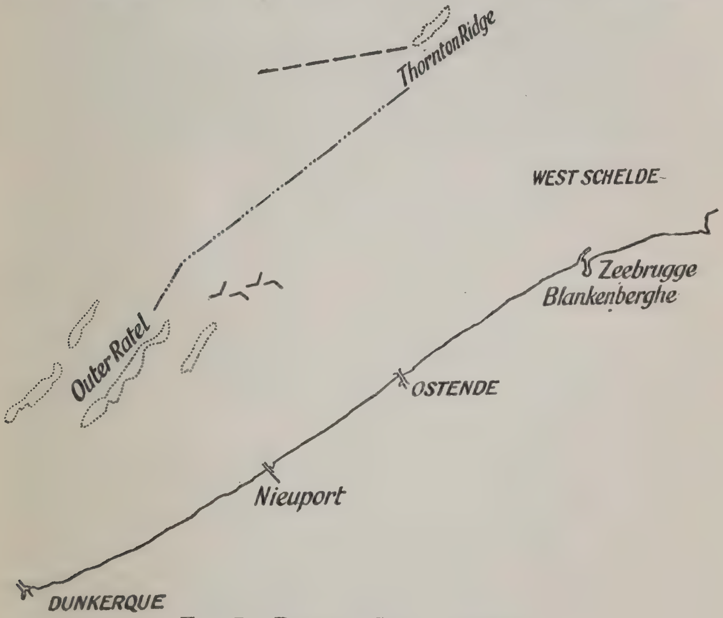

Thornton Ridge
WEST SCHELDE
Zeebrugge
Blankenberghe
Outer Ratel
OSTENDE
Nieuport
DUNKERQUE

Fig. 7.—Belgian Coast Barrage.

seaward of and covering the mines, and other drifters with indicator nets anchored still further to seaward.

The whole operation was completed by May 7, and from May 1 to well into October a continuous patrol of the net barrage was kept up. Admiral Bacon in his published book on the subject claimed that the result of this barrage and patrol was to prevent all enemy mine-laying in the Dover area for over five months. Commander Schulze, in referring to this net barrage, which actually extended from the Scheldt towards Dunkirk, pays a tribute to the seamanlike skill with which it was carried out. He does go on to say, however, that our patrols watched it only during daylight hours, and that at night they withdrew to Dunkirk. It was therefore a simple matter for the Germans during the dark hours to remove sufficient netting to allow their submarines to have a passage through. He says that only in the last year of the war was the barrage patrolled at night, and that the increased vigilance of our patrol craft there was very trying.

Knowing this coast and its waters very intimately, and having gone very carefully into the matter, I consider the following to be a just estimate of this barrage. It is too much to claim for it that it was effective, but it certainly was to the enemy a nuisance and a hindrance. We have evidence enough that the enemy did by means of grapnels tug clearances in the nets; and submarines did most certainly get through. In fact, on the very day the barrage was laid UC 10 got through; and two days later UC 5 also passed through a clearance in the net barrier. And I accept Commander Schulze's statement in this respect. On the other hand, we know that it was the means of destroying U 10 that summer; while on the very day

M.L. MAKING A SMOKE SCREEN
Screening a Monitor which was bombarding the Belgian coast.

A MONITOR BOMBARDING THE BELGIAN COAST
With M.L. standing by.

To face p. 118

the barrage was laid, UB 3 was sunk by the drifter *Gleaner of the Sea.* But the range of the enemy's shore batteries was greater than was expected, and the bombarding monitors had to be smoke-screened by the M.L.'s. Neither nets, nor mines, nor monitors, nor destroyers, nor any other craft definitely put an impenetrable zareba round Ostend, Blankenberghe and Zeebrugge. On the other hand, this attempted barrage was using up a very large amount of ships, men, and material. Nets needed to be renewed, Dunkirk was called on to provide accommodation, and Dover was kept busy with supplies. It was a very expensive business for so little result. During the winter it was allowed to lapse, but in the following July, 1917, it was reinstituted with a view to the projected great landing on the Belgian coast that summer, which never came off. A daily patrol was started and a fresh line of nets was laid one mile seaward, so as to be clear of the 1916 line.

The sinking of UB 3 was as follows, and shows the magnificent resourceful spirit of the fishermen. The drifter *Gleaner of the Sea* on the afternoon of April 24 was lying at anchor off the Thornton Ridge with her nets out astern, the object of this line of drifters here placed being to thwart submarines making for the Belgian coast. It was soon after two o'clock that the watch on deck heard a curious grinding noise against the wire connecting the anchor to the drifter, and on going forward to see what was the matter the watch saw a submarine foul of this wire, which fishing craft often use in lieu of a chain cable. Skipper R. G. Hurren, on being called, at once rushed on deck, seized a lance-bomb, and threw it on to the fore deck of the submarine, causing a great explosion. The submarine then sank bodily on the wire, which parted under the strain. UB 3 had been badly holed by the bomb, and went to the bottom in about ten fathoms.

Skipper Hurren, however, was taking no chances: the submarine must be finished off without any question. Having fired a signal rocket, he ordered his engines full speed ahead, his intention being to tow the nets round where the enemy had disappeared; but on looking astern and seeing a large boil of water, he thought UB 3 was coming up again, so ordered the nets to be let go as he was about to ram the German. However, on steering over the spot where the boil was coming up, he could see nothing, so another lance-bomb was thrown, and the place where the air-bubbles were still coming up was marked by a dan-buoy and sinker. There now arrived alongside another drifter, *E.E.S.*, who dropped some more bombs, and by this time a large amount of petrol and bubbles was coming to the surface. *Gleaner of the Sea* then went to fetch a destroyer, who fired her sweep over the place where oil and bubbles were still coming up. The sequel of the story is that UB 3 was sunk unquestionably with all hands, that Skipper Hurren was awarded the D.S.C. and £389 for himself for his prompt action; whilst the rest of the crew shared the balance of £1,000, and one was decorated with the D.S.M. Thus, these ordinary fishermen by their excellent fighting spirit plus their knowledge gained by years of handling nets were simply invaluable to the service in which they now temporarily belonged.

Nothing succeeds like success. In the autumn of 1915, when we were rather pressed to find additional trawlers, a nice little windfall of twenty-five had come our way. For on the last day of September, in consequence of a sweep by Commodore Tyrwhitt's

Harwich force, nine German trawlers who were out fishing off Germany were captured and brought to the English east coast. A week later another sixteen were also captured in the same manner. Some of these were then sent to be fitted out for the Auxiliary Patrol, and before long were serving under the White Ensign in the Mediterranean. Some of them were employed in December, 1915, as mark boats in connection with our North Sea mine-sweeping. But these captured German trawlers were inferior to ours, being smaller, with less sheer; and some of them gave a great deal of trouble with their engines.

On the other hand, the Auxiliary Patrol was enjoying no picnic, and by the end of 1915 five mine-sweepers, five yachts, sixty-three trawlers, fifteen drifters, and three motor-boats had been lost. By the end of the following year three more mine-sweepers, two paddlers, five more yachts, fifty-eight more trawlers, forty more drifters, six M.L.'s, and three more motor-boats had also gone, with, of course, loss of life. Such was the inevitable price of Admiralty. But every day the new force was becoming more efficient, more confident of its ability, and more able to carry out its manifold duties in every theatre of the war. No one could accuse it of being a mere scratch Navy, an ill-disciplined rabble of craft. On the contrary, it would have been a bad day for our sea warfare if this Auxiliary Patrol had been non-existent; and to take one factor alone, consider what would have happened to the armies in France if the enemy had been allowed to do exactly what he liked in the English Channel. Bad enough it was that he could lay his mines every now and again off the Channel ports, but if these had not been promptly swept up, or if submarines had been allowed to lie in wait at convenient harbour approaches it would have meant that neither reinforcements nor munitions, nor stores, nor anything else could have been sent across from England. The only alternative would have been to rob the Grand Fleet of its destroyers, and thus take away the screen from the Fleet, on which the whole of our Empire and victory were to rest.

It is thus that we must regard this heterogeneous new Navy, with no tradition behind it except the great traditions of the sea throughout all ages. It is thus that we must remember with gratitude all the days and nights it spent at sea in every kind of weather that can try ships and men. To-day these craft, generally speaking, are back in their original spheres, and nets are being used again for fish. But left behind for posterity to possess and contemplate is a new and original sea tradition which is one of the most valuable things that ever came out of the war.

CHAPTER IX

SMALL SHIPS AND GREAT UNDERTAKINGS

THE success of the R.N.V.R. motor gunboats patrolling the Smyrna Gulf soon became manifest. It was a new event in history that yachtsmen should be carrying out a small blockade, as the Grand Fleet in the North Sea were carrying out a distant blockade against Germany. For the motor-boats off the coast of Asia Minor enabled a good look-out to be kept on the approaches to Smyrna Harbour, effectually put a stop to all traffic between Smyrna and Vourlah and Gulbagtche by water, and acted as a precaution against enemy attempts to sweep up our minefield there.

Similarly in the Adriatic the new Navy was to play a most important yet almost impossible task. It was difficult enough to make the twenty-one miles of the Dover Straits even so much as inconvenient to the enemy submarines. But the Otranto Straits are three times this width, and the depth is far greater. Thus to net this passage effectually, and at a far greater distance from the drifter base, was an undertaking not to be begun without the most careful consideration. On the other hand, something had to be done to protect our Mediterranean lines of communication, and the most obvious strategy was to prevent, if possible, submarines from coming to or from their bases at Cattaro and Pola. But pitted against our fishing craft were the 'star-turns' of the whole German submarine corps of officers, for the best U-boat captains had been sent to the Middle Sea. Moreover, Cattaro and Pola occupied the position to the Otranto Straits which Zeebrugge and Ostend did to the Straits of Dover: there was always a possibility of the drifter line being raided.

Even before the first of the drifters arrived from England the British light cruiser *Dublin* had been torpedoed, though she managed to reach Brindisi. It was on August 31, 1915, that the first seven drifters set out from Falmouth. By the last day of September sixty had reached Taranto, and the first two divisions had begun to lay their nets across the Otranto Straits, but by October 12 the first casualty occurred. For the drifter *Restore* (who had no defence apart from her nets, with the exception of five rifles) was shelled that morning by a submarine with two guns. One shot exploded in *Restore's* engine-room, disabling her; the submarine then closed and fired several more shots, so that the drifter sank. Three other drifters were also attacked.

By the middle of December all the Adriatic drifters had been armed with small guns, and more of these craft had been sent out from England. But now an unexpected job was to be undertaken. For on the last day of November, 1915, the Serbians began their retreat through Albania, and not till February of the following year was the remnant of the Serbian Army concentrated at Corfu. Thus from the early part of December for over two months the British Adriatic drifters had an exceptionally strenuous and hazardous time. Briefly, they assisted in the evacuation of the Serbian Army and refugees, covered the landing of the Italian troops at Valona, protected the steamers carrying food and supplies for the Serbian and Montenegrin Armies, rescued troops from impending shipwreck, and generally covered themselves with glory. The public knows so little of these facts that the following further details need to be added.

You have only to look at the map of the Adriatic to see that Durazzo is within four hours' steaming distance of Cattaro for any attack by cruisers or destroyers. Now the Serbian evacuation was complicated by the fact that at the time the Italian Navy was busy evacuating the Austrian prisoners captured earlier in the war by the Serbians. The Serbs were just beginning to reach Skutari and Elbasan, and were supplied with food through Giovanni di Medua and Durazzo, the latter port having been selected as further from Cattaro. It was decided to send the Serbian troops to Corfu (further down the Adriatic), the refugees to France, Algeria, and Corsica, and the prisoners to Sardinia.

On December 4 the Italian transport *Re Umberto*, carrying troops to Valona, struck a mine off Cape Linguetta. Fortunately the drifters *Evening Star* and *Lottie Leask* were in the neighbourhood, and behaved with great gallantry and courage. Regardless of the mines, they proceeded to the sinking transport, secured alongside, threw ropes aboard, and thus five hundred Italian soldiers were able to slip down on to the two drifters. But it was a near thing. The drifters had to chop away their ropes just in time to prevent being taken down by the transport to the bottom. On the same day the Italian destroyer *Intrepido* was either torpedoed or struck a mine off Valona. The drifter *Manzanita* (Lieutenant H. C. C. Fry, R.N.R.) went alongside, and was the means of saving every officer and man.

On the following day the first supplies of stores and provisions from the British Adriatic Mission were fallen upon by an enemy squadron, who bombarded Medua and sank shipping. It was after this incident that the decision was made to use Medua for taking off refugees, sick, and wounded, but to use Durazzo for the army, and then convey the army to Valona and Corfu. A line of drifters with nets down was accordingly placed between Durazzo and Valona and Corfu. While the troops were being embarked, the drifters also patrolled the harbours. To cover the evacuation, British and Italian cruiser and destroyer forces cruised to the north and south, but for the next weeks inside the line of net-drifters a service of steamers conveyed many thousands of soldiers and refugees, including the Kings of Montenegro and Serbia. It was a gigantic operation, transporting over one hundred thousand human beings, and the drifters received the highest praise for their share.

On January 8 the transport *Citta di Palermo* and two of our drifters were sunk by mines off Brindisi, and it was entirely owing to our drifters that many lives from this transport were saved; for these craft throughout the long evacuation were ubiquitous at sea, and entirely responsible for the immunity of troops and storeships from submarine attack. Obviously such a long line of transport all those weeks was a most tempting bait to any U-boat, and but for these drifters it is impossible to imagine how the retreat could ever have been effected. And the final proceedings of the evacuation of Durazzo were the most trying of all, for the weather was bad, the enemy's guns commanded the piers, and the Italians lost several hundred of their troops, but the last men were finally brought off by our drifters under cover of the fire from Italian cruisers.

Thirteen drifters were actually engaged in this evacuation at Durazzo under fire—eight outside the harbour and five inside—and their homely names suggest the fisherman-character more than the warship-venture upon which they were employed. These thirteen drifters were the *Hastings Castle*, *Union*, *Sunnyside*, *Prime*, *Selina*, *Ploughboy*, *Felicitas*, *Primevere*, *Our Allies*, *Bon Espoir*, *Mill o' Buckie*, *Oberon II.*, *Floandi.* The skippers, as usual, were magnificent, and the officers who commanded the groups carried on the fine traditions of the sea service.

Sub-Lieutenant H. H. Deakin, R.N.R., was group officer at Durazzo, protecting the transports, and handling them, under fire of guns and bombs from aircraft, with the greatest courage. But he was not to survive for long; he was blown up in the drifter *Lily Reiach* before the end of February whilst piloting ships into Durazzo. He was succeeded by Lieutenant H. C. C. Fry, R.N.R., who in *Hastings Castle*, with another drifter, the *Selina*, rescued over a hundred survivors from the *Maraschiaro*, and four days later the same two drifters rescued at great risk twelve of the crew from the mine-trawler *Monsone.* Another officer, Lieutenant E. M. Ray, R.N.R., who had charge of a group of drifters working under fire between Durazzo and the transports, destroyed all boats and lighters that could not be taken away, and thus prevented their falling into the enemy's hands. With enemy guns mounted on the surrounding hills and shelling the beach, the conditions on a small scale resembled the landing at Gallipoli. The award of the D.S.C. to three R.N.R. lieutenants and the skippers of seven drifters was thus well deserved.

The sinking of the drifter *Lottie Leask* was on this wise: she had left Brindisi in the forenoon of December 18, and just as it was getting dark and she was twenty miles W.N.W. of Sasseno Island she was attacked by two submarines on the starboard side. After being hit five times the drifter was abandoned in a sinking condition. Five rounds had been fired from the drifter's gun, but ineffectively. And then the fishermen crew had a series of adventures very different from catching herrings. All through the night they rowed in their small boat, and by seven the next morning sighted the eastern Adriatic coast, landing a few hours later on a sandy beach. At dusk they came to a shepherd's hut, and staying the night outside, continued their way until the afternoon, when they encountered another shepherd, who took them to a monastery, where they were given a room and some food.

But the fishermen discovered there a couple of Austrian officers and a soldier, so hearing them talk about interning the drifter's crew, the latter cleared out and walked all night through the swamps. Having spent the next day walking and the night sleeping on the hillside, they eventually came across some Italian soldiers, who gave them biscuits, and directed the way to an Italian camp; then, marching with a hundred Serbians, they arrived at Valona, got on board a transport, and thus returned to Italy.

On January 20, 1916, the drifter *Garrigil* (Sub-Lieutenant H. H. Deakin, R.N.R.) had an engagement with a submarine. A few days later the *Lily Reiach* had a submarine in her nets, and on February 20 the drifter *Gavenwood* blew up on a mine outside Brindisi, with the loss of two officers and nine men. Although the *Lily Reiach* and another craft were only about fifty yards astern and arrived immediately on the spot, nothing was ever seen of the crew. On February 26 *Lily Reiach*, which had done so well, herself foundered on a mine off Durazzo.

But it was after the Durazzo evacuation had been completed at the end of February that the drifters were able to go back to their original work and be disposed across the Otranto Straits from Sasseno Island to Cape Otranto. During March the drifters *Boy Harold* and *Enterprise II.* foundered on Adriatic mines, and in that month drifters showed their versatility by undertaking mine-sweeping. All this time, then, these gallant little craft had been bearing a heavy burden, with precious little rest for their crews. They had become accustomed to shells, mines, and submarines; to their decks crowded with survivors and refugees as less than two years before they had been with the silver herring. In spite of all their efforts, there was no question that submarines were coming up and down the Otranto Straits between the base and the Mediterranean, where merchant-ships were being sunk at an alarming rate.

Among the astute German U-boat captains so operating at this time was the celebrated Lieut.-Commander Arnauld de la Périère. His father was a French officer who was taken prisoner in the Franco-Prussian War, and afterwards became a naturalized German, settled down, and married a German lady. The son grew up and became a German naval officer, and in his early days had to endure some good-natured chaff by reason of his French name. He lived this down, became very popular with his brother officers, and was destined to become the finest U-boat captain in the Mediterranean if not in the whole of his service.

He was certainly an extraordinarily fine officer, who relied chiefly on long-range gun-fire in sinking so many of our valuable ships in the Mediterranean. We know perfectly well how this was done; for, as propaganda, Germany sent a cinematograph operator with this officer on one of his cruises, and some excellent films were taken showing our ships sinking and the mercantile mariners coming in boats alongside submarine. Unfortunately these films fell into British hands and were publicly exhibited, with the Admiralty's approval, and I still remember the effect they had on a London audience. From private sources I happen to know the disgust and horror of the French Arnaulds that one of their kinsmen should be a U-boat officer. A member of one of the oldest of the French families, it was by a strange coincidence that an Arnauld, himself a naval officer, was serving in a high capacity in a French Mediterranean port at the time when the German was operating in those waters. And I often used to wonder what the scene would be like had Arnauld de la Périère been taken prisoner from his submarine and brought before his French cousin.

It was because all these submarines were negotiating the net-line across the Otranto Straits that by April the depth of the nets was being increased to one hundred and forty feet, in addition to their being submerged an additional twelve feet below the surface. Between Cape Otranto and Sasseno Island you will find the water is from three hundred to five hundred fathoms, so there was nothing to prevent an enterprising U-boat captain, who cared to take the risk of his boat becoming damaged under the pressure, from diving to a great depth well clear of the nets. But on May 13 the drifters at last were to have some reward for their arduous vigilance. The story is as follows:

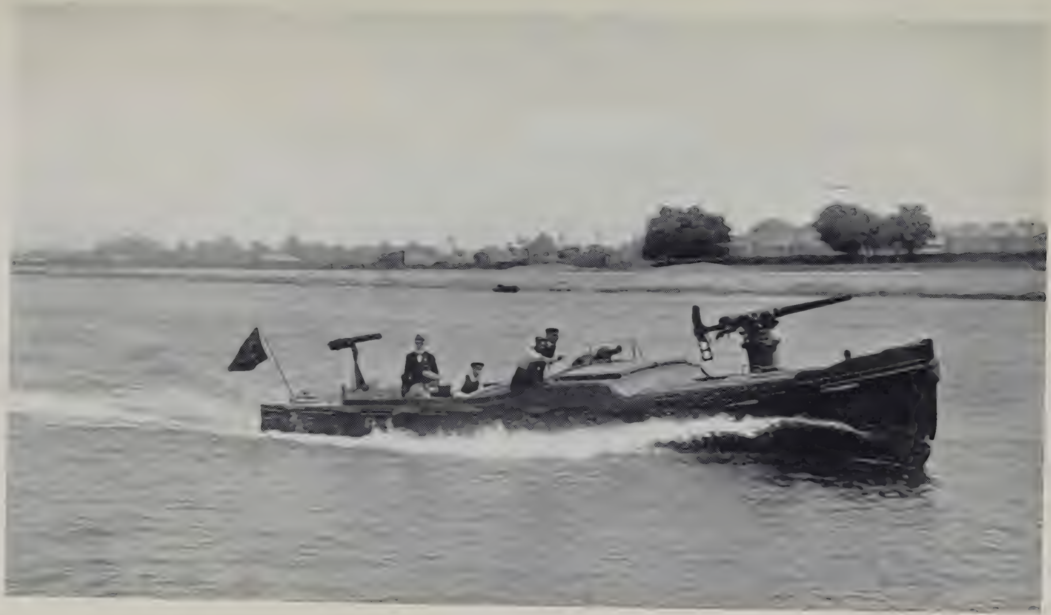
It is clear from the reference books that at the beginning of the war Austria-Hungary possessed about a dozen submarines, among which was U 6, a small craft built in 1910 with a maximum surface speed of about 11 knots. The Germans up the Adriatic never had much use for their allies as seamen, but there was a certain amount of co-operation, and Austrian submarines did operate. On May 12 U 6 left Cattaro for a cruise and came down the Otranto Straits. On the night of the 9th she sighted one of our drifters and dived, but shortly afterwards felt herself caught in the nets. One propeller was fouled, but the other continued to work. On rising to the surface to extricate herself and cut the nets, she found herself surrounded by drifters burning powerful lights and firing at her.

For, when twelve miles E.N.E. of Cape Otranto, the drifter *Calistoga* noticed that unquestionably there was a submarine in the nets, and immediately afterwards the drifter *Dulcie Doris* noticed that the submarine, in rising to the surface, had fouled her nets too. The drifter *Evening Star II.* on observing U 6 slipped her nets and attacked with her gun, and the first shots seemed to strike the Austrian. There is no doubt but that, though the submarine was Austrian, the crew were German. Seeing the predicament, the German captain ordered his men to trust to their lifebelts, open the Kingston flooding valve, and allow the submarine to sink while they jumped into the sea.

Boats were at once lowered from the drifters, picked up the captain, two officers, and seventeen men, who were brought into Brindisi by the drifters in triumph. The lights seen were the drifters' Very's lights, and the engagement lasted only five minutes, during which the fishermen behaved with great resource and cool courage. In the net-game they were consummate experts, like their brothers off the British coasts. The award of £1,000, divided between *Dulcie Doris*, *Calistoga*, and *Evening Star II.*, showed how highly their services were appreciated by the Admiralty.

We must now shift our attention temporarily much further south to the continent of Africa, and see how in the most unexpected manner and in the most remote corner of the world improvised craft under the White Ensign were to have such an amazing effect on the history of our time. In order to make this quite clear, it will be necessary to make a brief survey of the existing circumstances which were to lead up to a most interesting operation. The scene is German East Africa, which was divided on the west from Belgian territory by Lake Tanganyika. In August, 1914, the Germans resolved to obtain control of this lake, which is over four hundred miles long and between thirty and forty-five miles wide, the southern shores being British.

There came overland from the east a number of officers and men from the German ship *Möwe* who had sunk herself at Dar-es-Salam on August 8, having failed to organize a raiding expedition. (She is, of course, not to be confused with the *Möwe* which became a celebrated raider in the South Atlantic.) There was on the lake a 90-ton Belgian steamer called the *Alexandre Delcommune*, and if she could be dealt with, the command of the lake would become German. Therefore the party from the *Möwe*, under Lieutenant Horn, reached Kigoma, the German port on



Armed Motor Boat 'Mimi'

To face p. 132

the east side, and proceeded to arm and commission the German passenger steamer *Hedwig von Wissmann*, a 60-ton craft, the four pompoms having been brought overland from *Möwe*. The *Wissmann's* speed was not more than 7 knots. The only outlet to this great lake is the River Lukuga, which, flowing out on the western side, connects up with the Congo. Lieutenant Horn, on August 25, sighted the Belgian steamer, who had the superior speed, but retired under the protection of the Belgian shore batteries at the Lukuga River, being so damaged that she had to be beached after an action of two hours.

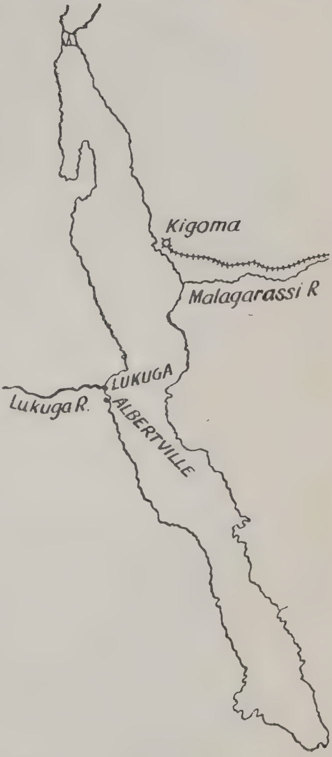
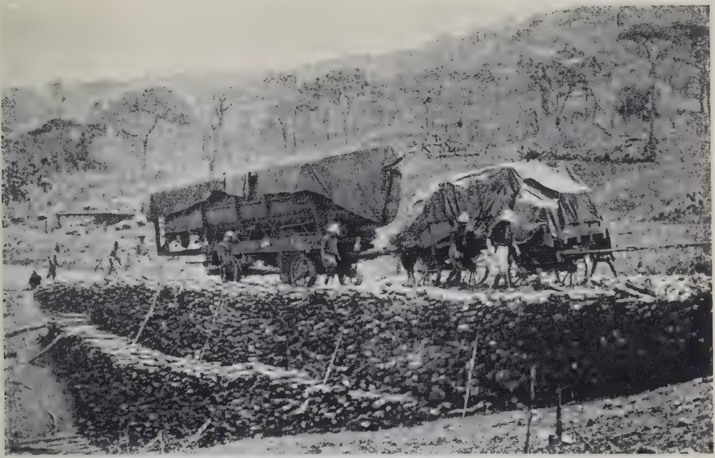


Fig. 8.—Lake Tanganyika.

Now the *Möwe* party, profiting by the railway which came westward as far as Kigoma, had also brought from their sunken ship their steam pinnaces, which became very useful. During October Lieutenant Horn and crew took the *Wissmann* across the lake, landed, crept through the lines of sentries, and partially blew up the *Alexandre Delcommune* on the beach and managed to re-embark. A few days later it was discovered that the Belgians had removed the damaged steamer some distance away, but she was now shelled by a 22-pounder mounted on a raft, and towed by the *Wissmann*, completely destroying her. An attempt had been made by the Germans without success to tow her off by means of a steam pinnace. Thus the command of the lake became German quite early in the war, and the enemy kept up a continual blockade of the Belgian shore, preventing boat traffic by day and worrying the Belgians frequently. During the early months of 1915 intermittent warfare went on, and Belgian positions were bombarded.

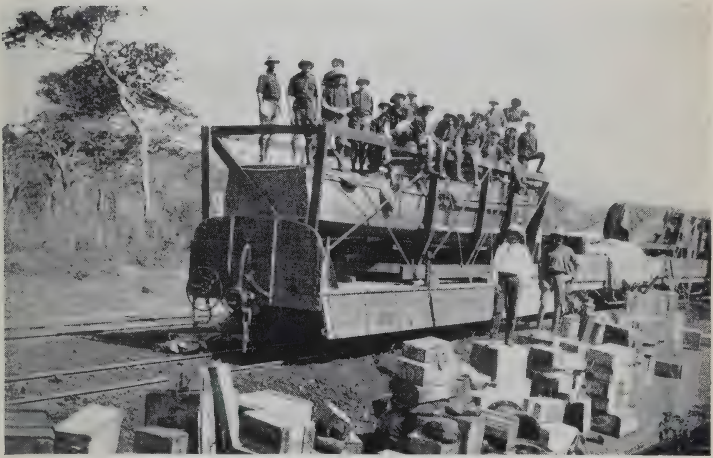
Now it was believed in England that if the command of this lake could pass from German to Allied hands it would greatly assist the operations contemplated by Nyasaland, Rhodesian, and Belgian forces, for already steps had been taken to command the waters of Lakes Nyasa and Victoria Nyanza. But how was this to be done without craft? The answer was to send suitable ones out from England. Thus it was that in April, 1915, the Admiralty decided to despatch a couple of armed fast motor-boats from England aboard ship to Cape Town and thence up country by rail as far north as possible, after which by road and by river to Lake Tanganyika.

The kind of craft obtained were about the last you would ever expect to become warships. They were a couple of 40-feet twin-screw Thames motor-boats, which were obtained at Teddington. Named the *Mimi* and *Toutou*, they would have made pleasant up-river launches in peaceful luxury, but it was odd to think of them ever doing anything else. However, they possessed the very important speed of 15 knots, and were thus of great mobility. Superior speed at sea showed its value on many occasions, notably at the Battle of the Falklands and the Battle of Jutland. The same lesson was to



‘ MIMI ’ ON THE ROAD

‘ Mimi ’ being transported by road through Africa, drawn by traction engine.



‘ MIMI ’ ON THE AFRICAN RAILWAY

On her way to Lake Tanganyika.

To face p. 134

be demonstrated on an inland lake. Fitted with a 3-pounder and a Maxim gun each, they did some practice firing to test the concussion, and were then put aboard a steamer at Tilbury, and sailed for South Africa by the middle of June. Already pioneers had preceded them, and passing over the intervening time we find the *Mimi* and *Toutou* up country, being detrained at the beginning of August at Tungurume. Special arrangements had of course been made to protect these slender craft by cradles, and with all the slinging out from ship and rail there was every possibility of their becoming damaged beyond utility.

The fore-carriages of ox-waggons were now fitted under the fore-ends of the cradles, as a means of strength, and so the boats took to the road. But they were to penetrate a region that allowed no passage, so roads had to be made and bridges built. Two traction engines and trailers were also detrained, and began to tow these two frail warships overland. At first the bridge partially collapsed, had to be repaired, and so progress went on, a distance of six miles a day being made good! By the first part of September drinking water had to be sacrificed to the boilers of the traction engine; the heat, of course, was terrible, and the rough-going most irksome. But the Germans were in control of Tanganyika; the expedition which had now been three months on the way must hurry along. Having travelled over atrocious roads, and climbing to a height of 6,000 feet, they entrained at the end of September, next day reached Bukama, and then detrained again.

These so-called roads were a track six feet wide, and nearly two hundred bridges had to be built. It was only British doggedness and tenacity that caused them to win through. In charge of the transports was Sub-Lieutenant A. Dudley, R.N.V.R., who was an expert through most of the country passed; whilst Lieutenant A. E. Wainwright, R.N.V.R., who also had lived in the Katanga district, was in charge of the carriers and railway transport. It is to these officers that is due much praise for the way *Mimi* and *Toutou* were saved from a thousand risks. But the journey was not yet over. It was now October, and at Bukama the boats were launched into the River Lualaba, which is really the Congo in its earlier stages as it flows north before turning west towards the Atlantic. Here again there were difficulties, for the river was very low, so barrels had to be lashed under the two boats to reduce their draught and protect the shaft brackets. Most of the channels were too shallow to allow the engines to be used, so the two craft carried each about a score of paddlers, and even then they kept grounding on sandbanks and occasionally had to be lifted over the shoals.

After a day or two the water became deep enough to allow them to proceed under their own power, towing the barges with the stores, and by October 9 they reached Musanga, fifty-eight miles away. Here a river steamer awaited them and a 200-ton lighter. The barrels were now removed from the motor-boats, and all equipment placed in the lighter. Towing a small barge, *Mimi* and *Toutou* proceeded slowly down stream, entered Lake Kisali, but owing to the bad state of the river both craft had to be put on board the steamer's lighter, for which purpose a slip had to be built from shore to lighter. Then with occasionally grounding and hauling off the steamer and barge down the Lualaba, they reached Kabalo, where a slipway was built, and the two boats were placed once more on railway trucks and in this

‘Mimi’ going down the Lualaba

To face p. 136

fashion they reached Lukuga, which is on the west side of Lake Tanganyika. It was now October 28, and the journey from Tilbury had taken nearly five months.

In the meantime the German harbour of Kigoma had by June already completed the steamer *Graf von Gotzen*, two hundred feet long. She was armed with a 4·1-inch gun from the German cruiser *Königsberg*, which had been destroyed by the Royal Navy up the Rufiji (east coast of Africa) in July. But though the *Graf von Gotzen* was able to convey eight or nine hundred men, and thus was useful as a transport of troops, she could do no better than 6 or 7 knots. (For Colonel von Lettow, you will remember, was engaged during the summer in an offensive which needed the transport of troops across the lake.) The Germans were already using a steam gunboat called the *Kingani*, built of wood and armed with a Hotchkiss gun mounted in the bows, and she was the fastest of the German ships.

The Germans, who, by the way, showed great activity on the lake, were aware that the Belgians were building a steamer. This was the *Vengeur* of thirty-five tons, lightly constructed, and armed with two British 12-pounders, but having a speed of only 6½ knots. There was also a flat-bottomed armed motor lighter and an open thirty-five feet armed motor-boat with a speed of 9 knots. They were of little use, however. Information had reached the enemy that the British naval expedition was on its way out, as we know from the account by Captain Gustav Zimmer (late of the *Möwe*, but then in command of the German naval forces on the lake). And it is interesting to fit in the details of the whole story.

Now, on the arrival of the two British motor-boats at the lake, it was decided to build a small port called Kalermie under the guns of Lukuga, for there was a shallow bar at the Lukuga exit. Piers then began to be constructed, soundings made, and good progress was interrupted only by bad weather. But the Germans were by no means idle, and they made repeated attempts to take photographs and obtain intelligence. Lieutenant Rosenthal from the *Hedwig von Wissman* landed through the surf and crocodiles on the night of December 2 at Kalermie, but the sentries were too smart for him. The next night he swam ashore again, reached the slip, and spotted the two motor-boats, was swimming back but could not find his boat, saw next morning the *Wissmann* a long way off, steaming to the north, landed below Kalermie, and was afterwards taken prisoner and did not return to Germany till February, 1920. His information as to the two motor-boats did not reach Captain Zimmer in time for what was to follow.

It was two days before Christmas that *Mimi* and *Toutou*, now little the worse for having come so many thousands of miles, were launched from the slipway at Kalermie, and on Christmas Eve did their trials, when they attained a speed of 13½ knots. Christmas Day passed without event, and then next morning —a Sunday—whilst the hands were mustering for Divine Service just before half-past nine, occurred the big dramatic incident. An enemy steamer was sighted coming south ! It was the gunboat *Kingani*.

The command of this British naval expedition had been entrusted to Commander G. Spicer-Simson, R.N., who had had previous experience in Africa, and preceded the expedition as far as Salisbury from

Natives assisting 'Mimi' and 'Toutou' over the Shallows

Paddling 'Mimi' down the Lualaba

To face p. 138

Cape Town. And now that his organization had just been completed through all those trying months, it was fitting that the enemy should appear with such promptness. We know from Zimmer's account that *Kingani* had been turned over to the German Commander Schoenfeld (Retired) for the purpose of blowing up the boats at Lukuga, this officer having become an expert in such work. The sea to-day was fairly smooth with a rising south-east wind and choppy waves. Two hours after she appeared, and by the time the *Kingani* was well south of Kalermie, having passed about seven miles off, Commander Spicer-Simson, wishing to cut him off from his Kigoma base to the north, put to sea in *Mimi*, Sub-Lieutenant Dudley, R.N.V.R., being in *Toutou*; a small Belgian motor-boat called the *Vedette*, manned by British ratings, following with supplies of petrol in case the chase should be a long one.

And now there was to happen a kind of Falklands battle in miniature, but extremely interesting in its tactics. *Kingani's* gun was mounted forward, so the British commander wisely decided to attack from astern, *Mimi* from the enemy's starboard quarter, and *Toutou* from the port quarter and in line abreast, for it was thought that the decks of these light motor-boats would never stand the shock of firing abeam. The contest now was to be for the command of the 'sea.' At 11.40 a.m. the two motor-boats were hurrying south; the *Kingani*, having gone into Tembwa Bay and stopped, was about five thousand yards away. But suddenly sighting the two British boats, she made off at full speed. At 11.47 the *Mimi* and *Toutou* were within a couple of thousand yards of the enemy, who had turned to the eastward, evidently about to make for his fortified base at Kigoma. At this time almost simultaneously the two forces opened fire in a choppy sea.

The enemy gradually altered his course to the north, which assisted in shortening the distance for the two motor-boats on the inside of the circle, and

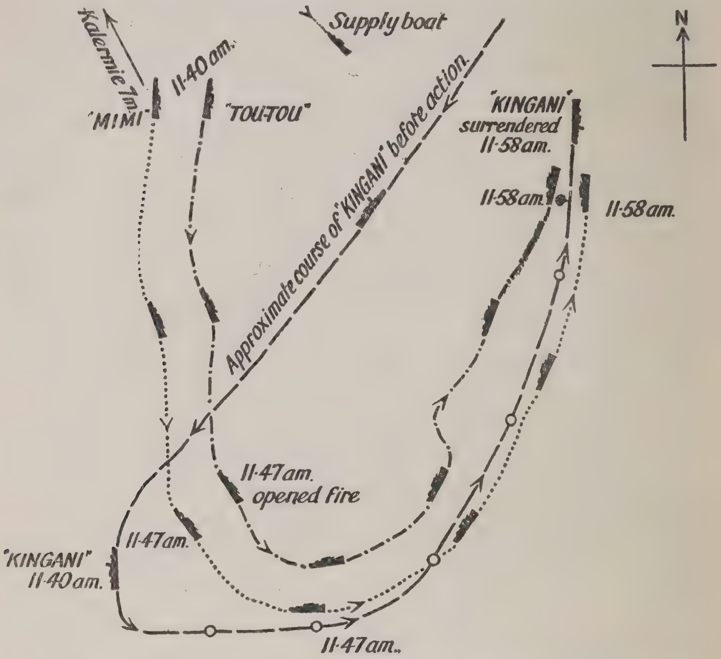

Kalemie 7m.
Supply boat
N
11·40 am.
"MIMI"
"TOU-TOU"
Approximate course of "KINGANI" before action.
"KINGANI" surrendered 11·58 am.
11·58 am.
11·58 am.
11·47 am. opened fire
11·47 am.
"KINGANI" 11·40 am.
11·47 am.

Fig. 9.—Plan of Engagement between "Mimi," "Toutou," and "Kingani."

Mimi then took position right astern so that *Kingani's* gun was unable to bear on her. The enemy then fired on *Toutou* with gun and rifles at a range of about a thousand yards. *Toutou*, having superior speed of the enemy, was now able to haul out of range. Meanwhile, *Mimi* went on firing deliberately one round a minute, shortening the range as convenient, and every shell hitting the enemy. About 11.52 the enemy's gun-shield was penetrated, killing one of the gunners and the captain. The next shell killed the warrant officer, another hit the skylight, and two native seamen and a native stoker were either blown or jumped overboard, leaving on board only one European seaman rating at the wheel, in a more or less dazed condition. The chief engineer then took command, saw that escape was hopeless, hauled down the flag, stopped engines at 11.58, and indicated surrender. Thus, within the briefest period, the British boats on their first attempt had won victory.

But such a sea was now running that the prize could not be boarded, so she was ordered to steer west-north-west towards Kalermie, escorted on either beam by the two proud little boats from the Thames. But the *Kingani* was in a bad way, for a shell had entered the port bunker and she soon sank. Of her crew, comprising six Germans and six natives, three of the former (including her commanding officer, Sub-Lieutenant S. Jung of the Reserve), had been killed and one slightly wounded. There were no British casualties, and our gunnery was excellent, though both motor-boats had been damaged by the shock of their own guns. It is interesting to observe that the fate of *Kingani* did not become known to the enemy for some time, although the worst was feared when she failed to return on December 26. According to Zimmer, *Kingani's* gun was a pompom, and the first of our shells killed Jung and a petty officer, the second killing the navigating warrant officer (Reserve), whilst the third blew the two men into the water, leaving only a couple of men untouched. Fortunately *Kingani* sank in shallow water, and three days later she was refloated, repaired, then renamed *Fifi*, armed with a British 12-pounder, and was ready as a British warship by the middle of January. And all this remained still unknown to the enemy.

For the action of December 26, Sub-Lieutenant Dudley was promoted to lieutenant, and two ratings were awarded the D.S.M. During December and January the *Hedwig von Wissmann* patrolled the coast and the *Graf von Gotzen* was engaged in transport work. Besides these two, there remained to the Germans a fast 25-feet patrol motor-boat and a 30-feet steam pinnace, both unarmed. Thus the last of hostilities had not yet been reached. It was in February that Captain Zimmer received news through native spies that *Kingani* had been sunk by a Belgian new battery, so he decided to verify the truth and to capture the vessels which were reported to be using the coast at night. He therefore proceeded in the *Graf von Gotzen*, sending a lieutenant in command of the *Wissmann* and the steam pinnace, on the evening of February 8.

Zimmer's plan was for the pinnace to remain on the German shore at the Kungwe peninsula while the *Wissmann* was to approach the Belgian coast early in the morning, and get the spies to point out leading marks for use by night. She was then to return to Kungwe and rendezvous the *Gotzen* at noon on the 9th. But when Zimmer arrived in her, he found that there was no *Wissmann*, and all that the waiting pinnace could inform him was that the missing ship had not arrived, but that heavy gun-fire had been heard that morning between nine and ten. The *Gotzen* proceeded to search as far as Lukuga, and had the unpleasant shock of seeing *Kingani* afloat and armed and flying the British White Ensign. But what had happened to the *Wissmann?* These are the facts.

As soon as the latter had been sighted, *Mimi*, *Toutou*, *Kingani*, and the supply motor-boat came out. The German tried to make off, but was attacked at 8,700 yards. The motor-boats kept altering their range and, while one boat fired, the other spotted the fall of shot. Zimmer observes that though the *Wissmann* repeatedly tried to close to his own range of 3,300 yards, the British boats by their superior speed were enabled to turn away and choose their own range. By 11.30 the *Wissmann* had been hit, then her boiler was pierced, and the oil-soaked firewood got alight. The enemy was helpless as the British boats kept out of range, his own engines would not revolve, and the *Gotzen* was nowhere in sight. The commanding officer therefore blew up his ship, and the survivors were picked up by the victors.

The German 'sea' supremacy was therefore restricted to the *Gotzen*, now that *Kingani* and *Wissmann* had been sunk. But with their usual resource and organization the enemy certainly achieved a plucky thing. A sister ship of *Kingani* was the *Wami*, which had been employed on the Rufiji, and there was also a 250-ton tug called the *Adjutant* on that same river. The latter had been British, but when reconnoitring one of the Rufiji entrances at the beginning of February in connection with the blockade of the *Königsberg*, the *Adjutant* was shelled from the shore and was compelled to surrender because her steam-pipes were hit. The *Wami* was put on the train and reached Kigoma in February. The *Adjutant* managed to get past our blockading ships off the Rufiji at night and steam down the coast to Dar-es-Salaam. She was obviously too big for the railway trucks, so she was taken to pieces by the railway engineers, and thus sent to Kigoma, where she was assembled.

The *Gotzen* ceased to be a fighting unit as her 4·1 inch gun and her 22-pounder were required elsewhere ashore. With only her pompom, she could not dare to try conclusions with the fast motor-boats, so Zimmer had to keep her in harbour at Kigoma from the middle of May until that base was evacuated on July 26, owing to the capture of the railway by the Belgians. The Germans then scuttled her. Next day the *Wami* carried the remainder of the German detachment to the mouth of the Malagarassi River, and then she was taken out into deep water and blown up, while one of the Allied motor-boats opened fire on her.

Thus, improvised, quite small craft rendered most valuable service in this distant part of the world. We have it on the authority of Captain Zimmer himself that these two fast motor-boats were able to reduce German 'sea' supremacy to a state of non-existence, and thus were able to render most valuable aid to the Allied military forces in that part of the world. I think that this motor-boat lake campaign is well worthy of careful study, for it shows in miniature one of the big lessons which Mahan has taught us in naval strategy. But who would ever have imagined that a couple of small, open river boats could be taken so many thousands of miles and create such an interesting precedent afloat?

CHAPTER X

SUBMARINES VERSUS THE AUXILIARY PATROL

In home waters the torpedoing on March 24 of the S.S. *Sussex* in the English Channel by a German submarine caused so much pressure to be brought on Germany that U-boat warfare in Northern Europe ceased from May 8 to July 5, 1916, though the sinkings in the Mediterranean went on all the same.

But this was only one of those momentary lulls in the campaign. There can be no question, in the light of present knowledge, but that enemy submarines were now not much hindered by the Dover barrage. What efforts had we been taking to make this a defence against the enemy? During the winter of 1914-15 there had been laid the mine barrage, extending roughly from north of Dunkirk to a little east of the North Foreland Elbow Buoy. But actually the mines got adrift, as already mentioned. We have also seen that in the spring of 1915 the Dover drifters began to use their nets across the Straits. But this was not enough.

The first real Dover barrage came into existence when a line of moored mine-nets and of deep mines was laid from the South Goodwins to the Ruytingen, and afterwards extended to the Snou after the destroyer raid of October 25-26. Now this barrage had to be marked by light buoys every three miles to prevent our destroyers and Auxiliary Patrol vessels from fouling it. For this purpose secret gaps were left in the barrage and periodically changed. The mine-nets were supported by means of a line of buoys and were patrolled by drifters, M.L.'s, and other craft. Admiral Bacon himself has admitted* that 'this barrage never stopped submarines passing' although 'it was an undoubted deterrent to destroyers.'

For the same difficulty occurred again. Owing to weather and the strong Dover tides no amount of drifters could keep the net-line in an efficient condition, and the mines dragged and got foul of the nets. But this barrage was not definitely abandoned until May, 1918, and reliance was placed on the Folkestone-Gris-nez mine barrage, which was the only satisfactory one that was ever laid across the Straits to trap enemy submarines. It began to be put down in November, 1917, and was barely finished when Armistice was signed. Later on we shall see how this reaped a splendid harvest of submarines.

But to return to the late spring and summer of 1916, the enemy submarines had become so familiar with the positions of nets and mines laid across the Straits that there was no more effort needed than taking a horse over a hurdle. Each submarine captain had his favourite gap in the barrage, and his own methods of putting his craft across the obstacle, still the effect was achieved right enough. But just now and again the fishermen were able to prevent him from getting back home. Such an instance occurred on April 5, 1916. Owing to the operations of the submarines off Havre, a number of our drifters were sent to be based on that port. The enemy was acting on a sound principle: every successful mine or torpedo used off that port meant aid to the German armies and lack of aid to the armies of Britain and France.

---

* 'The Dover Patrol,' p. 399.

A favourite position selected by the enemy was in the roads near the Whistling Buoy. On the morning mentioned half a dozen of our net-drifters, named the *Endurance*, *Welcome Star*, *Stately*, *Comrades*, *Pleiades*, and *Pleasance*, commanded by Lieutenant J. M'Loughlin, R.N.R., went out to shoot their nets in this vicinity inasmuch as a submarine had been there sighted that morning. They had not long to wait, for *Comrades* felt a strange shock of something bumping the bottom of the ship, then *Endurance* realized unmistakably that a submarine was in her nets. As if to prove this still more forceably, the periscope struck the rudder of *Endurance* so heavily as to put the rudder out of action. Cleverly paying out her nets like an angler playing a fish, *Endurance* allowed the submarine to get thoroughly wrapped up in the tangle and then let the nets go.

The rest of the drifters in response to *Endurance's* signal had already encircled the enemy, and a French torpedo-boat dropped bombs over the spot, after which UB 26 was compelled to rise to the surface and surrender. It was a neat little operation, and the usual £1,000 was awarded among the drifters, with a D.S.C. for both Lieutenant M'Loughlin and Skipper T. C. Wylie of the *Endurance*.

Prior to the war there was no such craft as a mine-laying submarine. The Germans instituted this operation with their Flanders UC-boats in June, 1915. After the enemy by the end of 1915 gave up (with the exception of an occasional raider such as the *Möwe*) the use of surface ships for mine-laying, he began from the spring of 1916 to use for this purpose not merely the small Flanders submarines, but the big U-boats of the High Seas Fleet based on the Elbe. These now came across the North Sea, and laid a little dangerous cluster in various parts all round the British Isles, except for the area from Flamborough Head south about to Land's End, which for a long time was reserved to the Flanders submarines.

Now this submarine mine-laying on a gradually increasing scale continued to the end of the war, and it was certainly a deadly move against us in that the operation could be carried out with such deliberation and secrecy right up, so to speak, to the very doorstep of our harbours. The element of surprise became invaluable, and during that temporary lull of not attacking ships after the *Sussex* incident, there was plenty of work to be done in laying mines by means of submarines. It is indeed to be noted that prior to the Battle of Jutland the U-boat mine-layers carried out a clever series of operations where it was possible that they might entrap our big-draught warships. The loss of H.M.S. *Hampshire* with Lord Kitchener off the Brough of Birsay was brought about in this manner, the mines having been laid by U 75 on May 29, 1916—two days before Jutland. Other U-boat minefields were laid about this period in the Firth of Forth, the Moray Firth, the Clyde approaches, off the north-east English ports, off the south of Ireland, in the English Channel, and so on. Meanwhile the UC-boats dropped their mine-cargoes off such positions as Falmouth, Dartmouth, Devonport, Dover, Harwich, Lowestoft, and elsewhere.

Now all this meant not merely the direct loss of shipping through sudden contact with the mines, but did much more. Presently, when the enemy began to use again his guns and torpedoes, this new mine-laying policy backed up and co-operated with the other method of attack. For the number of ships and personnel in the Auxiliary Patrol was limited, and if these craft were engaged on one operation, they could not simultaneously be carrying out the other operation. This annoying, stealthy, and surprising submarine mine-laying did its best to disorganize our anti-submarine patrol system, and to scatter by widespread distribution our mine-sweeping strength. Any moment, anywhere, along the coast one, three, or a dozen mines might be found. That meant always employing trawlers and other craft linked together in pairs up and down certain lanes, thus at once earmarking them as no longer available for direct attack against U-boats. It must be admitted that in this strategy the enemy to a great extent turned our offensive Auxiliary Patrol craft into defensive units. Presently the enemy's routine developed into first laying his mines in the required positions, but then (being now light and less liable to accident) carrying on the usual anti-shipping warfare with gun and torpedo.

But the Auxiliary Patrol were very much alive to the strenuous times that were now beginning, and again on May 27, 1916, those splendid Peterhead trawlers were to distinguish themselves. The scene was once more off that coast, but less than half-way across the North Sea towards Norway. Why should a submarine be at this date in this locality? We imagined at the time it was because they were attracted by the traffic which was going on between Norwegian and our north-east ports. But actually it was the preliminary to the Battle of Jutland, which was to take place on May 31.

How do we know that? The answer is to be found on pp. 587-8 of the 'Battle of Jutland Official Despatches,' which the British Admiralty published in 1920; for, after the German surrendered fleet was scuttled at Scapa Flow in 1919, there was found in an officer's cabin of one of these ships an interim report, dated July 4, 1916, addressed by Admiral Scheer, Commander-in-Chief of the High Seas Fleet, to the Kaiser on the subject of the Battle of Jutland. This report has not received the attention of the Press which it certainly deserved, though it is printed at the end of the British despatches.

Now in this report Scheer definitely states that 'the temporary suspension* of the submarine warfare against commerce permitted of the co-operation of all submarines which were ready for sea. In the middle of May, therefore, I despatched all submarines to sweep through the northern portion of the North Sea, and to take up positions off the enemy's main bases—*i.e.*, Humber, Firth of Forth, Moray Firth, and Scapa Flow—from May 23 onwards, and then to compel the enemy to put to sea by making an advance with our fleet, and to give battle under conditions favourable to us. I hoped by these dispositions to bring the submarines into action, and at the same time to utilize them for reconnaissance purposes. . . . The detached submarines were informed by wireless that the enemy forces might put to sea on May 31 and June 1.'

From this same source we know that it was part of the plan that U 74 should lay a cargo of mines off the south-east corner of the Firth of Forth (obviously to trap Admiral Beatty's battle-cruiser fleet). Four days, then, before Jutland took place, the armed trawlers *Searanger* (Lieutenant H. J. Bray, R.N.R.), *Oku*, *Rodino*, and *Kimberley* were on patrol over a hundred miles seaward of Peterhead, when suddenly a sail and smoke were sighted, steering on an easterly course. On proceeding to investigate, this sail and smoke were found to be the disguise of a submarine —in fact, U 74. The time was 12.30 p.m., and presently *Searanger*, *Oku*, and *Rodino* opened fire, the condition of the sea being smooth. Now intentionally these four trawlers were cruising in no formation, but resembled, by their motions, fishing vessels scattered, at work. For such, in fact, U 74 evidently mistook them, and was thoroughly bluffed. The range was quickly found, and as soon as *Searanger's* shell struck the submarine, the latter threw away all disguise, lowered sail, and returned the fire alternately at each of the trawlers as they gradually closed round the enemy.

---

* Caused by U.S.A. diplomatic intervention following the *Sussex* incident.

This submarine was armed with one gun for'ard and one aft, and quite early the latter gun was put out of action. The enemy's shots fell short, her periscope was partially shot away; she ceased fire altogether, and tried to escape by submerging. But the trawlers were too smart for her, and were already half-encircling her. Suddenly she was seen to rise to the surface with a heavy list and an erratic course, like some drunken thing. *Kimberley* tried to ram, but she was too close, so she fired into the submarine at point-blank range three shots. By half-past one U 74 went to the bottom for good and all, leaving behind only oil for her remembrance. Thus once again the Auxiliary Patrol had destroyed a submarine, which, apart from her 4·1-inch and her 22-pounder gun, was able to carry a couple of torpedoes *and* thirty-six mines. The serious damage, therefore, afforded by *Searanger*, *Oku*, and *Rodino* (Lieutenant H. T. Sawyer, R.N.R.), and the final knock-out blow by *Kimberley*—above all, the clever trawler tactics—were thus of the utmost value.

In the Battle of Jutland obviously the Auxiliary Patrol have no share, though the armed yacht *Mingary* and her unit did good work in chasing off a submarine that was waiting off the Forth on June 1 to trap H.M.S. *Warspite* on her way to Rosyth with many holes from shell-fire. And then there was to follow quickly another piece of good work by an Auxiliary Patrol craft, and this time by one of the smallest vessels that ever flew the White Ensign. This was not one of the 80-feet M.L.'s, but the motor-boat *Salmon*, which measured 40 feet long by 8 feet beam. She was just a very fast little craft, with a large cockpit, no cabin, but a 135 horse-power Stirling motor, which developed a speed of 20 knots. *Salmon* was one of half a dozen motor-boats which had been presented to the Admiralty by Mr. Cochrane, a wealthy American, who used to own the famous racing schooner *Westward*, which in the historic race on August 1, 1910, beat the two German yachts *Germania* and *Meteor*.

Salmon had been built as recently as 1915, had been sent to work out of Lowestoft, and was commanded by Sub-Lieutenant E. T. West, R.N.V.R. Now just before midnight of July 6-7, 1916, we see her on patrol off Lowestoft, looking out for enemy submarines, which were fond of using the swept channel. In the vicinity there was certainly one of those Flanders UC mine-layers, for *Salmon* kept hearing buzzing sounds on her hydrophone every now and then. But it was about 1.30 a.m.

when the buzzing recommenced, though much nearer this time, and approaching rapidly. Very soon the hydrophone indicated that this buzzing was right underneath *Salmon*, so the latter now put her engines at full speed ahead, dropped a depth charge, which exploded; but then a much more violent explosion followed, throwing up a column of water fifty feet high. For this was a mine-layer from Flanders, UC 10; and her cargo was thus detonated. Pieces of white-painted wood, grating, bubbles, and a smell of gas came to the surface. But there was no more sound on the hydrophone; this small craft, like the two motor-boats on the Tanganyika, had done her job completely.

But the enemy was making a very serious attack on our North Sea fishing craft. True it was not possible for him always to tell the difference between a patrol trawler and one engaged in fishing, except in those cases where the patrol vessel mounted her gun conspicuously on the fo'c'sle or high up just abaft the bridge. But in any case the enemy realized that it was sound policy to sink our fishing craft at sight, for if they were not warships they were food-suppliers. The following will show how this culminated. During the first week of July, 1916, a large Scotch drifter fleet had been herring-fishing off the Tyne. An enemy submarine appeared amidst the fleet, and in one night promptly sank seven of them.

The reply to this was to send the fishing fleet to sea accompanied by three armed drifters or trawlers of the Auxiliary Patrol. But on the night of the 27th, in spite of this protection, half a dozen more drifters off the Tyne were sent to the bottom. But presently there arrived a dozen armed trawlers from Portland and twice that number of drifters from

Falmouth. The latter now put to sea pretending to be a fishing fleet, and, convoyed by armed trawlers, operated in the position where the drifters had been sunk. The attacks then ceased in this locality until the end of September.

It is more than probable that the submarines which had instituted this attack on the fishing fleet were working north, for two days later, on the morning of July 7, and following day, the Peterhead patrol trawlers sighted, chased, and exchanged shells with two submarines. In each case the enemy made off. But now came a powerful submarine concentration which was to bring off a big event. The enemy had every reason for appreciating now the fighting strength of the trawler patrol off the Scotch coast. Perhaps they were resolved to avenge the loss of U 74. At any rate, on the evening of the 11th of July, the Peterhead patrol trawlers *Onward* (12-pounder), *Nellie Nutten* (3-pounder), and *Era* (3-pounder) were off the coast doing their job of work, the unit being under command of Lieutenant Claude Asquith, R.N.R. Suddenly a submarine was sighted, so *Onward* and *Nellie Nutten* (Skipper C. Angus) opened fire promptly. But the latter quickly found herself outranged, and sighted a second submarine from the north-east, and presently one approaching from the south-east. The submarines then kept to port and starboard of the unit and shelled at long range, which they were well able to do with their superior armament of one 4·1-inch and one 22-pounder mounted on each craft.

After three-quarters of an hour a shell entered *Nellie Nutten's* stern, and the next shell disabled her. By this time also *Era* was on fire with a couple of submarines alongside her. *Onward*, too, was out of control; for our trawlers never had a chance. They put up a gallant fight, but were completely outranged. Actually there were four submarines—viz., U's 46, 49, 52, and 69. (U 52, by the way, knew this coast well. She was one of those ordered to operate off the Firth of Forth between May 23 and June 2 to entrap the battle cruisers in the operation that became the Battle of Jutland.) Now *Onward*, on sighting the first submarine, had been led into the ambush of the other three U-boats: the result was a foregone conclusion. One 12-pounder and a couple of 3-pounders against four 4·1-inch, and four 22-pounders can hardly be said to be evenly matched; and to make a long story short, all three trawlers were sent to the bottom.

Finding herself helpless, *Nellie Nutten* steered towards a Dutch lugger, and thus all the crew were able to jump aboard the fisherman and be saved, with the exception of the chief engineer, who had been killed. In due course the Dutchman got in his nets, made sail, and landed the survivors at Aberdeen. The whole of *Onward's* personnel were taken prisoners and eleven of *Era's.* But Skipper Angus was commended for his seamanship in manœuvring his disabled ship and saving practically all his men. Lieutenant Asquith was awarded a D.S.C. This engagement well manifested the weakness of our improvised Navy. Before the war the possibility of having to arm some thousands of fishing craft and other vessels had never been dreamed of, consequently the shortage of guns was acute. Later on, in the last year of the war, this defect was remedied, and the howitzers became invaluable. It has always seemed to me amazingly wanting in initiative that the Germans never pulled off more of these engagements. The best trawler gun we possessed was a 12-pounder, and many of the craft had a 3-pounder instead. With all their cunning and endurance it is hardly credible that enemy submarines only on the very rarest occasions made any deliberate fight against our patrol vessels, which were their deadliest enemies. The immediate result of this action was that the east coast trawlers were supplied with 12-pounders.

Attacks on our fishing fleets continued, and various schemes were employed, including a revival of the British C-class submarine idea, working in conjunction with one of our disguised trawlers. A disguised sailing drifter was operating off Bridlington, and armed sailing smacks went out to beguile the enemy within range. But these were merely incidental. It was the Auxiliary Patrol which had before it all the time the steady job of thwarting the U-boats by means of perpetual vigilance. And so with the mine-sweepers. Two years had passed and they had been able to destroy between three and four thousand mines, any one of which would have sufficed to finish a ship. The introduction of the submarine mine-layer had increased the work of our trawlers and paddlers enormously. But besides the sloops and gunboats, the M.L.'s were now actually being employed for this purpose, their light draught and the use of serrated wire being most suitable. It was not merely round the British Isles, from the Orkneys to the Needles, but to such regions as the White Sea that submarines now carried their mines. Whilst sweeping up a submarine-laid minefield in the White Sea area, the British trawler *John High* was blown up, with the loss of all hands except one man.

In other parts our auxiliary craft were kept equally busy, and in the Adriatic we can see the thrust and parry of the anti-submarine forces. Across the Otranto Straits those bonny little drifters were still trying to stop with their nets the submarines which made their bases up the Adriatic. On July 7, 1916, one of these submarines, bound northward, did get entangled, but she managed to escape. Apparently on reaching her Austrian base she reported the incident, for at daylight on the 9th the drifter line was raided by an Austrian cruiser, who succeeded in sinking the two drifters *Astrum Spei*, *Clavis*, and damaging the drifters *Frigate Bird* and *Ben Bui.* We lost ten men killed, nine missing, and eight wounded. Once again it showed the weakness of unarmoured, slow, weakly armed wooden and steel craft doing an exposed job, ready target any night or day that the enemy had sufficient initiative and dash to make the effort. It was only on seeing a couple of Italian destroyers approaching that the Austrian made off.

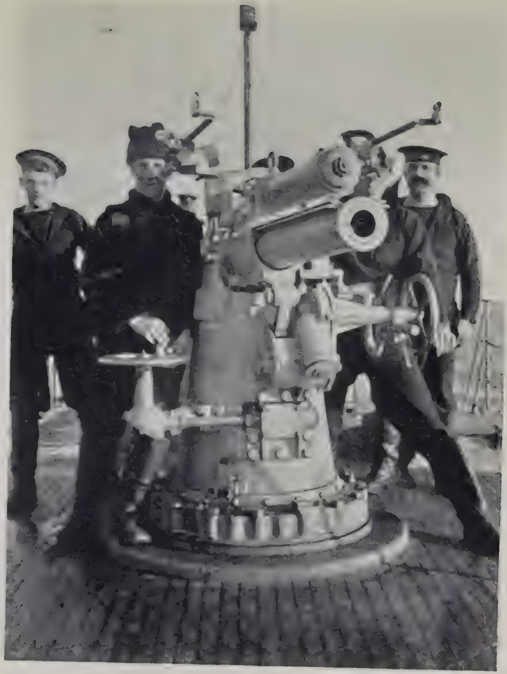
Evidently this raid was directed towards making the net-drifter line ineffective: the enemy was anxious about the returning submarines. For on the 10th another submarine, also steering north, got caught in the nets, though she disentangled herself and escaped. Now, in consequence of this raid, the position of the line was at once altered on the 11th to extend from Cape S. Maria di Leuca (which is the 'heel' of Italy) to Fano Island off the Albanian coast. It was on July 30 that the Adriatic drifters were to have their revenge. This is how it happened.

About half-past six that morning the drifter *Quarry Knowe* was at her nets as usual when the mate noticed there was a heavy strain on them, so called Skipper W. Bruce to come on deck. There was no question about it: the strain was considerable, and a wire was now shackled on to give more play. Skipper Bruce signalled to the drifter *Garrigill* that the nets were sinking, and when the latter came steaming up at full speed, she too noticed the strain and air-bubbles rising to the surface. *Garrigill* then dropped a depth charge, there followed an explosion, but the strain on the wire continued. She then dropped another depth charge, but still the strain remained. *Quarry Knowe* now began to tow the net into shallow water, but after half an hour the wire was likely to part, so *Garrigill* shackled his wire round the nets. But eventually nets and submarine sank, and thus ended UB 44 with the whole of her crew. It was the best possible reply to the loss of *Astrum Spei* and *Clavis.*

But a few weeks later there came a new form of attack. I think there can be no doubt that this Otranto net-line, if little more reliable than the Dover line, was a great source of anxiety to the enemy. The occasional submarine losses and the efforts which were made to destroy the drifters may be cited as ample proof. Had it been possible at that time to make this line a real bulkhead instead of a wavering curtain, we should have been able to cut the enemy submarines off from their base, and thus reduce the losses of our Mediterranean shipping to something quite small. Just before eight o'clock on the morning of August 26 the drifter *Craigbo* (Lieutenant Knight, R.N.R., who was in charge of a drifter group) sighted three Austrian aeroplanes coming from the north, so hoisted signal to slip nets. Two of these concentrated on the drifter *Rosies*, who fired with their rifles. But the second bomb hit *Rosies* on the fore-hatch, exploded, and she sank within a couple of minutes, the

A Dockyard Case

An M.L. with her bow damaged by collision.



M.L.'s 13-Pounder Gun

These 13-pounders were originally mounted in M.L.'s but afterwards removed.

To face p. 158

crew being just able to get into their boat in time, floating clear as the drifter herself went down.

Meanwhile the third aeroplane attacked *Craigbo* with machine-gun fire, though failed to hit. But now the other two aeroplanes came to use their machine-gun fire on *Craigbo* also. The rest of the drifters had begun to close round her, and whenever the aeroplanes came low enough to be attacked, the drifters opened fire with their guns. After a brief interval the aircraft returned to drop half a dozen bombs, but fortunately they fell only alongside *Craigbo*, doing no damage, though deluging the decks with water. All this time *Craigbo's* wireless operator remained quietly at his instruments, sending out signals as if bombs were not falling all round. Finally, having sunk only one ship, the aeroplanes made off again to the northward. The lesson learnt from this incident was that anti-aircraft guns were requisite, and so these were presently supplied. But that was only a makeshift. Obviously against aircraft you must employ aeroplanes, and so in the following March an Otranto Straits seaplane base was started.

The summer of 1916 saw most of the five hundred M.L.'s in commission, commanded by the original officers who had joined the R.N.M.B.R. in the autumn of 1914, plus a number of others who had since joined up. Courses were held at Southampton, Portsmouth, and the Royal Naval College, Greenwich, in navigation, seamanship, gunnery, and so on. There was now an exceedingly valuable corps within the new Navy. The M.L.'s were anything but perfect, but their virtues outweighed their defects. Some of the personnel were a little raw, and had had no seafaring experience before. But as a whole this motor launch Navy did most excellent work in all sorts of ways and in every theatre of the war. Those Senior Naval Officers at the various bases who began by resenting the arrival of these craft were soon to find that without them the work could not have been carried on. Patrolling, chasing submarines, escorting shipping, exploring minefields, sweeping up and destroying the mines themselves—there was hardly a maritime job they failed to tackle.

Thus there was need for them in the Otranto Straits. The steam yacht *Catania* reached Taranto towards the end of July to act as mother ship to these M.L.'s; the first four of them reaching Taranto by the middle of August on the deck of a collier from England. Four others also thus reached the same port, but these then proceeded under their own power to Mudros via the Corinth Canal. It may be mentioned here that other M.L.'s reached Taranto next month by collier *en route* for Mudros, using their own power from Halif after being floated. One of these was destroyed by fire at Taranto in September; and in that same month three more were lost by the torpedoing of their transport (S.S. *Inverbervie*) in the Gulf of Squillace (south of Otranto Gulf), though a fourth M.L. on board her managed to float off and actually proceeded to her patrol in the Ægean later on. Other M.L.'s had reached Taranto under their own power from England on September 3. (See Appendix IV.)

Arrangements were made for the M.L.'s to use Gallipoli as their base. (This, of course, is the Italian harbour in the Gulf of Otranto; not the Ægean.) And before the end of August the first M.L.'s were already on patrol in the Otranto Straits. A few days later the drifter base was transferred from Brindisi to

Taranto, and thus these craft were able to operate much nearer to their home port. As more M.L.'s arrived, they were fitted out, engines tuned up, and they went forth to help in the Otranto Straits barrage. The tendency was to keep this line as well to the southward as the greatest narrowness of the Straits permitted; hence the shifting of the bases more southerly. Thus the drifter line was less near to Austria with its raiding forces. With their 180 feet deep nets, which they towed at slow speed, they were stretched across the fifty odd miles to Fano Island, a great menace if not an effective reply to the submarines. From the Italian Gallipoli and from the little harbour of Tricase a dozen M.L.'s were well at work in September. Geographically the latter harbour was most convenient for the M.L.'s because it was so near their sphere of action. But it was not deep enough when there was any swell on, and steps were taken to dredge it.

It was no more possible to keep a taut line with nets stretched across the Otranto Straits than it was across the Straits of Dover. It was found that in spite of being 180 feet deep this curtain had gaps. And although submarines were seen frequently, they were avoiding the nets. The drifter line was occasionally shifted a little further north or further south, and then an Allied minefield was laid off the Otranto shore, as it was believed that the enemy used to get hold of the land here. M.L.'s were also used to prevent the submarines thus getting a fix of their position. Seven miles north and seven miles south of the drifter line Italian and French patrols protected the barrage, so gradually a general improvement was being made. Of course there were losses; they were inevitable. Thus the drifter *Michaelmas Daisy* foundered on a mine with the loss of two officers and ten men near Santa Maria di Leuca. On the same date the drifter *Finross* got ashore near the Adriatic Gallipoli and was lost.

There is no doubt whatever that submarines continued to get through as if there were no obstruction. The submarine UC 35, for instance, left Kiel on December 3, and proceeding via the English Channel reached Cattaro on the day following Christmas. That is to say, she had not merely got through the Dover barrage and patrols, but the Otranto nets, Italian destroyers, and other craft. It was a little disheartening; but just when this stage was reached, and the fishermen and others began to wonder if their ships were doing any good, something would happen to give them the greatest possible encouragement and belief in their own special service. Such an incident happened on December 17, 1916.

You have to think of these drifters with their homely, simple names, and their splendid fishermen crews towing their nets this afternoon in a strong southerly wind and moderate sea—or what a landsman would call a rough day. The drifter *Fisher Girl* was in the Otranto Straits with eight 180-feet nets, the depth of 500 fathoms, or 3,000 feet, being very different from the shallow Dover Straits, yet minus the Dover tides. Skipper A. H. Sage suddenly noticed that the buffs supporting the nets were below water, so hoisted the submarine signal, and bleated on his steam whistle. He started to heave in his nets, but the weight made it impossible. And it was quite obvious that in those depths no net could have fouled the bottom. It was certain that a submarine was entangled.

In charge of this particular group was Skipper W.

Skipper and Crew of a Drifter

To face p. 162

Sutton in the drifter *Guerdon*, and on arriving at the scene he ordered the nets to be slacked away and then dropped depth charges on the enemy below. Presently arrived the drifter *D.H.S.*, who also exploded her charge. *Fisher Girl* still held on to her nets, but by the evening it was blowing a December gale. The submarine had been in the net for most of four hours, when the watch on board *Fisher Girl* sung out that the submarine was alongside. One of the drifter's crew then picked up a lance bomb and hurled it at the enemy, but the missile fell short. *Fisher Girl* blew her whistle, fired rockets and Very's lights, and *D.H.S.* returned and dropped another depth charge over the position in the rainy darkness. A dramatic effect followed.

Although around the locality there was a nasty sea running, this explosion made the sea to be as smooth as if it were calm weather ; for oil from the submarine now welled up. The enemy had become lifeless, and by morning the tow-rope was as tight as an iron bar, with the dead weight in the nets. An effort was made to get wires underneath and sweep the submarine to the surface, but the nets parted and so did the wires. But the submarine had been given her final blow, and thus perished the Austrian U 20. Our drifters at this time were using the ordinary steel wire nets without contact mines thereto attached. It is probable that the enemy was nervous about diving too deeply, and was not aware that the curtain extended as low as it did. But such a useful operation as this in bad weather foreshadowed the terrible shattering power which the depth charge was to have. Beginning by being ancillary to the nets, these explosive charges by the end of the war made netting as anti-submarine tactics practically obsolete.

CHAPTER XI

RAIDS IN THE STRAITS

One geographical advantage possessed by both the North Channel and St. George's Channel lay in the fact that they were too far away from an enemy base to fear raids. The latter were possible in the way that the mine-layer *Berlin* and the *Möwe*, *Wolf*, and others broke through our blockade, but most improbable. Actually neither of these straits was attacked by surface ships.

But to the similarity between the Straits of Dover and of Otranto, with their respective enemy bases at Zeebrugge and Cattaro respectively, we have already drawn attention. They were liable to be raided at any chosen time, and the drifters with their small armament were a tempting bait. It is therefore surprising not that raids did occur, but that they were so infrequent. The first raid on the Dover Straits by destroyers occurred on the night of October 26-27, 1916. In order to appreciate the conditions, let us see how the problem appeared to the enemy, even at the risk of some slight repetition.

During the summer of this year the Belgian coast barrage of mine-nets and deep mines had been laid by the Dover patrol vessels. As it was decided not to patrol this barrage during the winter months, a barrage was laid across the Dover Straits from the south-east end of the Goodwins to the south-west end of the Outer Ruytingen Shoal and thence east towards Dunkirk.* This barrage consisted of wire nets clipped to a jackstay supported at intervals by large mooring buoys. Attached to the nets were mines. This barrage began to be laid in September, and was completed as far as the Outer Ruytingen by October 21. In addition to these mooring buoys, there was a line of light buoys for the convenience of our own patrol craft.

The barrage was watched day and night by drifters in divisions, each division being under a lieutenant, R.N.R. Most of these drifters were unarmed, none had wireless, and they were supported only by armed yachts and trawlers, for the remainder of the Dover forces was fully occupied with escort and patrol duties. The responsibility rested on this Dover Patrol of denying to the enemy the straits, thus covering the maritime lines of communication with France, guarding against submarines the English Channel traffic route as far west as Beachy Head, regulating the traffic examined in the straits, and keeping watch on the enemy's Belgian bases. For the latter reason Dunkirk was used as an advance base.

The enemy's Flanders flotilla had been recently re-inforced by another destroyer flotilla, just arrived from Germany, and the night of October 26-27 had been well chosen as it was dark, and the north-east-going stream through the Dover Straits did not begin till after nine o'clock, and thus would be useful any time after then to assist the enemy's retreat. The meteorological conditions had been carefully studied, clear calm weather being chosen. Along the barrage this night four divisions of drifters totalling twenty-three were patrolling, and I believe that not more than half a dozen were armed, and with one 3-pounder each. They were supported by the trawler *H. E. Stroud*, which had a 3-pounder and wireless, the steam yacht *Ombra* with two 3-pounders and wireless, and M.L.'s 103 and 252, each with a 13-pounder.

---

* See Plan on p. 195.

This force, then, was suitable for harrying submarines, but quite inadequate for dealing with surface ships. But what about our own destroyers? They were disposed for defending the Downs, defending Dunkirk, with a reserve force inside Dover Harbour. The raid was carried out by enemy destroyers in two phases; there was the attack on the drifter line and the attack on the transport line. With regard to the first: At 10.10 p.m., whilst the drifter *Paradox* with her drifters *Gleaner of the Sea*, *Spotless Prince*, *Datum*, and *Waveney* were patrolling south-west of No. 6A buoy, enemy destroyers were sighted coming up astern steering about west-north-west parallel with the barrage. The first four destroyers passed ahead of the drifters without opening fire and altered course to west-south-west. The drifters made the challenge, firing a couple of rifle-shots, but the enemy ignored them.

But immediately afterwards there followed another destroyer division who opened fire, hitting all the drifters except *Paradox*, who made off to the north-west. Thus *Gleaner of the Sea* (which, you will remember, had destroyed UB 3 the previous April off the Belgian coast), *Spotless Prince*, and *Datum* were all sunk, and *Waveney* was set on fire. She was sighted, shattered by shell-fire, enveloped in smoke and steam, by the British destroyer *Flirt*, who stopped to rescue the *Waveney's* crew, and lowered her whaler. Almost immediately afterwards searchlights from German destroyers illuminated *Flirt*, there came a heavy close-range fire, and she too disappeared in a cloud of steam with the loss of all hands, except the officers and men in the whaler plus the first lieutenant and a seaman who had leapt overboard to assist *Waveney's* crew. This whaler, by the way, drifted to the north-east, and although a gale sprang up after midnight they sighted the *Waveney* at daylight, reached her, and thus this drifter was after all towed into the Downs, though the bad weather prevented her from being finally salved.

About 11 p.m. another division of drifters, consisting of *Eskburn*, *South Tyne*, *East Holme*, *Girl Norah*, *Pleasants*, *Roburn*, were roughly a mile and a half south-west of the west end of the barrage, near No. 2A buoy. The destroyers sank *Roburn* and damaged *Pleasants*, but the rest escaped with their leader *Eskburn* towards the Goodwins, *Eskburn* firing rockets to give the alarm to Dover. Meanwhile the yacht *Ombra*, who was near 11A buoy, on seeing firing west of her, sent a wireless signal to Dover and proceeded to gain touch with the division consisting of the drifters *Young Crow*, *E.B.C.*, *Ajax II.*, *Mishe Nahma*, *Launch Out*, and *I.F.S.*, who were near No. 9A buoy. But shortly after being directed by *Ombra*, this division ran into the enemy, who sank *Ajax II.* and *Launch Out*, damaging *E.B.C.* The fourth division were east of No. 15A buoy—that is, the other side of Ruytingen—and they were not attacked.

The attack on the transport line occurred about eleven o'clock, when the hospital ship *Jan Breydel* on her way to Boulogne was overhauled by six destroyers, who compelled her to be abandoned and then fired into her. She sank several hours later. The news which *Ombra* had sent in by wireless caused Admiral Bacon to send his six *Tribal* class destroyers out, and one of these, the *Nubian*, sighted five enemy destroyers close ahead steering an easterly course. They poured a heavy fire at short range into *Nubian*. Other destroyers were also hit, and the enemy escaped. *Nubian* was taken in tow, but before the morning it was blowing a full gale from the south-west; she drifted ashore, though her after part was subsequently salved and built on to the forward portion of the destroyer *Zulu*, which had been mined, and this combination was the following year commissioned as the *Zubian*.

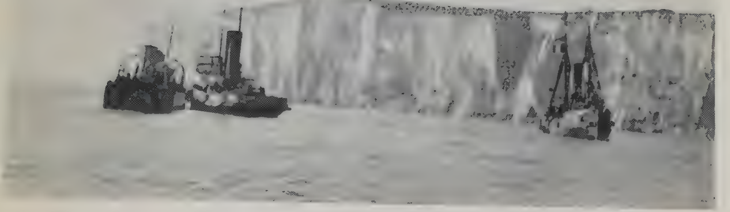
The material loss by this raid to the Auxiliary Patrol was six drifters sunk, three severely damaged. The trawler *H. E. Stroud* (which had been ordered by wireless to send in all drifters and M.L.'s and was proceeding towards No. 9A buoy) encountered four enemy destroyers returning east, received one round from each vessel, had her bridge shot away, and thus Lieutenant J. R. McClory, R.N.R., was killed as well as the helmsman. Altogether forty-five officers and men were lost and ten taken prisoners. As a result of this destroyer raid, the drifters were withdrawn from the line of buoys each night after dark. Thus the submarines again had little to hinder them from getting through the straits in the night hours.

But you may judge how this devastating onslaught affected the drifter men by the following tribute from Admiral Bacon:* 'It might perhaps have been expected,' he writes, 'that after this occurrence they would have been a bit shy of their night patrols, but they were quite unaffected. In fact, a report having got about that they did not relish watching their nets

---

* 'Dover Patrol,' vol. ii., p. 342.

M.L. Ashore



Salving the 'Nubian'

To face p. 168

at night, the skippers went in a body to the Captain of the Drifter Patrol, and said, so far from not liking to do night patrols, they were ready, should I wish it, to lay their nets and watch them off Zeebrugge. Their pluck was always magnificent—for, mind you, there is a vast difference in patrolling in a vessel that can answer an attack reasonably, and one provided with one rifle and a few rounds of ammunition—all the defence they had.'

The next raid occurred on the following November 23, with the tide an hour earlier than last time and with no moon. The reader will remember on an earlier page reference to the armed drifters based on Ramsgate which patrolled between the North Foreland and the North Goodwin Lightship. At 10.40 to-night six German destroyers appeared in this northern approach of the Downs. They fired a few shots at the drifters including the *Acceptable* (Sub-Lieutenant W. F. FitzGerald, R.N.R.), blowing away the drifter's stern light and starboard side light, smashing the ship's boat, damaging mast, galley, and engine-room casing. This drifter reported by wireless, a rocket was fired, and then the enemy, having thus been discovered, retreated before a division of our destroyers at anchor in the Downs could engage them. Thus this raid was a futile excursion, and there were no casualties.

Now, just a month after this—December 22—we have a raid on the Otranto drifter line similar, as to intention, to that on the Dover drifter line of October 26-27. I mention it now because of the interest in comparing the two. The object was probably as a revenge on the sinking by our drifters of the Austrian U 20, or to make it easier for the passage of UC 35, which was to arrive at Cattaro on December 26.

About 9.30 p.m. an Austrian light cruiser and four destroyers swooped down the Adriatic, shelled, and severely damaged both the *Gowan Lea* and *Our Allies*. Fortunately there were no casualties, and fortunately, too, the enemy were promptly sighted by six French destroyers, who were not on patrol, but happened to be passing the drifter line bound from Brindisi to Taranto. The enemy made off to the northward, but were pursued. Owing to superior speed they got away. Thus this also was a futile adventure. It is quite possible that the idea was to destroy the drifter line, so as to make attack by submarine on the 24th easy; for on that day the embarkation of 30,000 French troops for Salonika was to begin at Taranto, and a submarine assault on the transports might have been well worth while.

We shall return to the subject of these raids later on, but it may be stated now that one result of the attack on the Dover drifters was that a mine barrage was laid from the Goodwins right across to the Snou —this operation took from December, 1916, to the following April—south of the net barrage, which we saw supported by the big mooring buoys. The object was obviously to trap the submarines after they had crossed the barrage of nets on the surface and then dived.

All round the work of the Auxiliary Patrol was winning admiration. In regard to home waters it was confined to coastal routes, which the Auxiliary Patrol protected from mines and submarines. The result was that, with his bigger submarines of greater radius and endurance, the enemy found it suited him better to attack shipping well away from the land and beyond the areas of our ancillary craft. Nor was all this efficiency possible without occasional and sudden losses in the exercise of their duties. During 1916, among the many other disasters, five steam yachts thus went to their doom. Perhaps of all the sea-going patrol craft these long, narrow pleasure ships, mostly single-screwed, with big turning circles, were the least satisfactory, simply for the reason that they had been built for enjoyment and not hard wear. All the same, their officers and crews obtained excellent results with them, and the wintry weather of the Atlantic, North Sea, and English Channel tried ships and men pretty thoroughly.

It was in the last week of September of this year that the 526-ton steam yacht *Conqueror* went down. Previously owned by an English duke, she had entered the Auxiliary Patrol, and one evening was with the armed trawler *Sarah Alice* off the Shetlands examining a certain steamer. This was always a dangerous business, for it gave the enemy a sitting shot if he was on the look-out. It happened that there was a submarine in the vicinity, and he fired three torpedoes, of which the first struck the *Sarah Alice*, the second passed under the *Conqueror's* counter, and the third struck the *Conqueror* in the magazine forward of the bridge. Finish! Not one survivor was picked up from the trawler, but on the following morning one of our destroyers rescued seventeen officers and men from the yacht whilst on the Carley rafts to which they had taken. It may be put on record that, after the sinking, two enemy submarines appeared on the surface and remained in the vicinity. One fired a couple of Very's lights, perhaps to hasten the men's rescue, perhaps to attract the rescuing ship in order to sink her also. Who knows?

In that same year the yachts *Hersilia* and *Mekong* had been wrecked, the *Ægusa* sunk by mine off

Malta, and the *Zaida* sunk by submarine off Alexandretta. Just after Christmas, when near the Shipwash Lightship, both paddle mine-sweepers *Totnes* and *Ludlow* were mined within a few minutes of each other. The former had her bow blown off; the latter her stern. The former was towed into Harwich, but the latter sank after being anchored. In all sorts of odd ways the Auxiliary Patrol seemed to come in with its zeal and efficiency. Take, for instance, the air raid which occurred over the county of Durham on the night of March 31, 1916, when there were many casualties owing to the bombs dropped by the airship L 45. Perhaps you wonder what possible connection there could be between an aircraft over Durham and a trawler in the Thames estuary. Well, the answer is that L 45 came south after her raid. Just after midnight on the night of March 31–April 1 the armed trawler *Olivine* (Lieutenant W. R. Mackintosh, R.N.R.), was lying at anchor near the South Knock Buoy, when a strange object suddenly appeared amongst some drifters. The *Olivine* at once weighed anchor with two of the drifters, and challenged this object, which turned out to be L 45.

As no reply was forthcoming, *Olivine* opened fire, and ordered his drifters to do the same. After ceasing fire, a voice was heard from the airship, saying, ‘We surrender; have no arms. Come alongside.’ Thereupon the *Olivine* and the drifter *Kitty George* immediately launched their boats, and of a crew of eighteen Germans seventeen were taken prisoners, the other man having been drowned whilst under fire. Later on the *Olivine* started to tow this strange craft, but it suddenly collapsed and sank.

Those were the days when one used to see strange sights at sea. I remember speaking one day whilst on patrol off the Fastnet a very small paddle-steamer, much smaller than the craft which runs between Portsmouth and Ryde Pier, but heading well out into the Atlantic before turning south, bound for the Mediterranean. Nothing like it had been seen since the early days of steam navigation; the clock had been suddenly put back a hundred years. And there were those ex-London County Council 'penny' steamers, which used to run up and down the Thames. No one would call them exactly seaworthy, yet before the end of May, 1916, one of them—the *Edmund Ironside*—had reached the Persian Gulf *en route* for Mesopotamia, and her sister ship, the *Christopher Wren*, was on her way down the Red Sea. These little paddlers measured only 130 feet long and 18·5 feet beam.

As early as the end of 1915 six trawlers had reached Alexandria, and more were to follow. This was to protect the transport routes south of Crete and as far as Port Said, because of the damaging submarine warfare which had set in, and in order, too, to provide patrols along the Egyptian coast. Why? So as to prevent the landing of enemy agents, arms, and ammunition destined for the Senussi forces, as well as preventing the establishment of submarine bases along the coast. In addition, the trawlers would be required for minesweeping the entrances of Port Said and Alexandria.

But it is in connection with the operations of the British Army on the Western Egyptian front that the trawlers were to be so useful. General Sir John Maxwell in his published despatch has stated that as early as May, 1915, the pressure of the Turkish party in Tripoli was beginning to affect the Senussi, and already Gaafer, a very able Germanized Turk, had arrived in Tripoli with a considerable amount of arms and money. The attitude of the Senussi towards Egypt then became unfriendly, but the first important incident occurred on August 16, when two British submarines were sheltering from the weather near Ras Lick, on the coast of Cyrenaica. They were treacherously fired on by the Arabs, but the incident was closed by the Senussi's apologies.

Mr. W. T. Massey in 'The Desert Campaigns'* says that in response to calls from the shore an officer and an engineer put off in a collapsible boat, were fired on and wounded, but the guns of our submarines then exacted retribution. The next event was when the armed boarding steamer *Tara* (which had been taken up by the Admiralty from the London and North-Western Railway) was torpedoed and sunk by a German submarine on November 5. The *Tara's* crew landed on the coast of Cyrenaica, but were taken prisoners by the Senussi and held. On the following day a German submarine shelled Sollum, sinking the Egyptian coastguard cruiser *Abbas* at her moorings and seriously damaging the Egyptian coastguard cruiser *Nur El Bahr*.

Our western frontier posts were then withdrawn to Mersa Matruh, this harbour being within one night's sea-journey from Alexandria, and Sollum was evacuated. But between December and March operations against the Senussi went on, and here the trawlers became indispensable. They carried troops and stores to Mersa Matruh, and also they carried out an anti-submarine patrol along the coast, for we know definitely that between Constantinople and North Africa a German submarine acting as supply ship ran regularly every few weeks. Whilst the army was busy ashore in the operations which led to the occupation, in March, of Sollum, the trawlers thoroughly searched the coast and entered all indentations from Cape Lukka to Bardia. Off the former thirty natives fired on the trawlers for an hour, but the fishermen returned the fire. And then, after the occupation by our troops of Sollum, submarine indicator nets had to be placed and trawler patrols established.

---

* London, 1918, p. 134.

As early as the summer of 1915 motor-boats were sent out from the R.N.M.B.R. organization to the Suez Canal. Later on M.L.'s were used extensively on the canal and off the Mediterranean coast. For instance, in June, 1916, when the Royal Flying Corps carried out a successful bomb attack on El Arish (Mediterranean coast of Arabia), three trawlers and two M.L.'s were stationed along the coast to assist; and M.L. 38 was able to rescue the pilot of one of the machines which came down to the sea. Both this M.L. and the trawler *Earl Kitchener* were attacked by enemy aircraft. Before the end of the year enemy submarines had begun to lay their mines off Port Said Lighthouse, and not merely there, but in all parts of the Mediterranean where they were likely to bring injury to the Allied cause.

Thus in 1916 they were deposited off such places as Genoa, Marseilles, Taranto, Gallipoli (Italy), Brindisi, Venice, Corfu, Oran, Crete, Salonica, Mudros, Alexandria, and Malta. In the distant waters of the White Sea our trawlers had another busy summer, for German submarines had been there that season and laid over seventy mines. In home waters there was scarcely a headland, a lightship, a channel, or harbour approach that had not been mined. And yet, in spite of the daily traffic of all sorts, only

398 vessels had been sunk or damaged by German mines since the war broke out. No better proof could be desired as to the efficiency of our mine-sweeping service.

It was just before Christmas, 1916, that a change in administration became necessary. Owing to recent events a special department was created at the Admiralty designated the 'Anti-Submarine Division.' Hitherto anti-submarine work had fallen mainly on the Auxiliary Patrol and Q-ships. But now it was essential that the enemy should be resisted with every conceivable device. Thus we see inaugurated hunting patrols of destroyers and the newly built P-boats; the organization of air patrols round the coasts; the extension of submarine versus submarine patrols; the further development of the Q-ships; the development and increased use of the hydrophone; supplies of depth charges in greater quantities; arming defensively the whole of our Mercantile Marine, and providing them with trained gunners and smoke apparatus; reorganizing the Auxiliary Patrols on one universal system; strengthening the Straits of Dover and Otranto; routing shipping, and protecting them as convoys by escorts; and so on. At the same time the mine-sweeping now became a special section of this anti-submarine division, though later on a Director of Mine-sweeping became necessary owing to the enormous demands.

Just to take one instance of the routine work that was going on at this time, let us select the Humber Auxiliary Patrol craft. On any day you would always find the Grimsby mine-sweeping trawlers sweeping the traffic channel between the Spurn and Whitby. Four paddlers daily swept the Humber River, its approaches, and the Inner Dowsing Channel.

Thus nothing was left to chance, and their sphere of action ended where the next areas joined. So it was with the patrols. The Humber armed trawlers were patrolling all the way from Scarborough right away down to the Haisborough. Net-drifters were operating off Flamborough Head so as to trap the submarines which were very fond of using this headland as a landfall. Then, when Zeppelins were expected, there were special stations along the coast for the armed trawlers. In addition to all this, M.L.'s patrolled daily from daylight to dark inside the swept channel from Scarborough to Cromer, whilst other M.L.'s were at work off the broad Humber entrance inside the Spurn, regulating traffic. This represents the work of just one base, and in order to keep these activities going it meant that another lot of craft were in harbour resting, refitting, refuelling, and ready to relieve their opposite numbers. At the back of this organization were offices, store-sheds, docks, engineers, repairing plant, and so on. Multiply this by all the numerous bases in England, Scotland, Ireland, Malta, Mudros, Taranto, Gibraltar, Port Said, the West Indies, and elsewhere—yes, this new Navy was certainly a colossal undertaking, the like of which the world had never yet witnessed.

Thus, by the end of 1916 these craft had made history and were busier than ever, for in spite of the additional help from destroyers, P-boats, and others, it was the yachts, trawlers, paddlers, drifters, and M.L.'s who continued to wage ceaseless efforts against the enemy. The following chapters will show this clearly enough.

CHAPTER XII

THE GREAT CRISIS

The year 1917 was the most strenuous of all the war, for in April the submarines reached the height of their ability, and gave an infinite amount of work to the auxiliary craft, chiefly in regard to patrols, mine-sweeping, and escorting of valuable merchant ships. The months of April and June were very heavy for the mine-sweepers, and just about twice as many mines were laid as had been even in the previous year. This was by reason of the increased number of mine-laying submarines.

The art of mine-sweeping is not quite as simple as it may seem, and even to well-trained seamen there is much that has to be taught. But now that most of the new Navy had become experienced and well-trained, they were ready at short notice to put overboard their kites and pass their wires, and then go into the minefield. Perhaps it might be a small danger area—not more than about thirty mines, the whole of one submarine's cargo—so, after that field was swept up the craft were free to resume their other work until the next mine report. The use of the M.L.'s in scouting for mines at low water largely contributed to the reduction in the number of mine-sweeping vessels lost. The importance of shallow draught in regard to minefields can hardly be over-estimated.

During 1917, with the exception of the area between the Humber and Cromer, which the enemy had left clear probably to allow of his raids, or for an invasion, there was scarcely an important part of our coast-line that was not fouled by these mines. He modified his concentration and his methods from time to time. Thus, in the early part of the year he concentrated on the south and south-west coasts of Ireland, but at the end of the year he devoted his chief attention to mining the principal convoy ports and convoy routes, for the best of reasons. Also in the early part of the year the submarines used to drop the whole cargo of mines as soon as possible after reaching their assigned area, and generally in one batch. But by the end of the year they had become more scientific, scattering them off headlands and other navigational marks, and then artfully following astern of our sweepers and depositing mines in what were reported clear channels. A further variation was to torpedo our sweepers with a view to protecting the minefields and disorganising our own forces.

All this mine-laying caused unprecedented demands in the spring of that year for the greatest possible number of vessels. It was difficult to see where they were to come from. But thirty small paddlers, ten small tugs (*Dance* class), which had been built for the War Office to be used in Mesopotamia, eighteen Scotch motor-fishing drifters, and still more steam drifters were commissioned for the work. In addition to the sloops existing, a hundred nice little twin-screw sloops and three hundred drifters were all ordered to be built for the Admiralty. The idea was that thus the trawlers with their heavy draught might be free for anti-submarine patrols.

Some men had remarkably narrow escapes. The drifter *Cape Colony*, for instance, early in January had anchored off Harwich during the night watching her anti-submarine nets. Owing to the bad weather she dragged a good deal, but at daylight, when the capstan was set to work and the cable came rattling in, there was an amazing sight to be revealed, for jammed between the fluke and shank of the anchor was a German mine. Death was looking straight at the drifter. At once the capstan was stopped, but at the next scend of the sea the drifter pitched, the mine exploded, and up went the *Cape Colony*. The most remarkable thing of all was that although the ship was gone and the crew were in the water for a considerable time, with a heavy sea running, they were all saved.

So the war went on. From Northern Russia came the good news that U 76 had been sunk. She had been in action with the armed trawlers, but then she managed to make towards Hammerfest, where in response to her rockets a Norwegian motor-boat went out and rescued all but one man. The submarine sank. On another occasion two German prisoners from a damaged seaplane were brought into port by one of our Auxiliary Patrol craft. These Germans were extremely angry at their fate, and one of their first questions was as to how many Englishmen they had killed. As a fact they had killed none. They were, of course, well treated, but the patrol vessel included souvenir-hunters to commemorate the occasion. When it was discovered that the buttons off the Germans' coats had mysteriously disappeared, there was considerable trouble at the base, and all leave was stopped in that craft until the right number had been recovered. Before long four buttons somehow made their way back.

We come now to the 1st of February, 1917. This is a most important date in the history of our subject, for it signifies the beginning of Germany's unrestricted submarine campaign. The first stages of this new development were most marked. During the autumn of the previous year submarines had sunk never more than forty-two merchant ships a month, and in January it was only thirty-five. But in February it sprang suddenly to eighty-eight, rising in March to a hundred and three, and in April to a hundred and fifty-five. Never again throughout the war did the figures attain this April aggregate. Similarly in April a hundred and twenty-eight ships were lost by mines.

We know from Germany that the aim of this intensified warfare was to force us to make peace and thus end the war. Rapid, energetic, devastating action in the most ruthless fashion was to bring about what her armies had failed to accomplish. Submarines were stationed near our coastline where routes converged, and there the enemy was to attack our shipping so as to cut our sea-traffic. It was a desperate gamble, but it very nearly succeeded, as we all know. In order to nurse the submarines as much as possible and avoid the heavy strain of the North Sea and Atlantic, they were to proceed through the Dover Straits *at night and with the tidal stream*, instead of going right round Scotland. And it is a compliment to our M.L.'s that in the instructions to the submarine captains the German officers were warned against these 'large, very fast motor-boats.'

Now on this date how many submarines did Germany possess in northern waters? The answer is one hundred and nine, of which not less than twenty-five and not more than forty-four could actually be in active service on any given day. As Admiral Scheer remarks:* 'The large amount of technical apparatus in a U-boat required very careful overhauling and repair on her return from an expedition; also the damage due to the voyage or to enemy attacks had to be repaired. Generally speaking, after four weeks at sea a boat would need to lie in the dockyard for the same length of time for repairs.' He adds that on the opening of this unrestricted campaign Germany possessed fifty-seven submarines in the North Sea plus eight in the Baltic and thirty-eight in Flanders. Total, one hundred and three. My authority for one hundred and nine is Captain Bartenbach, who gave this in his evidence at the German national inquiry into the war in 1919.

Admiral Scheer says there were at this date also thirty-one submarines in the Mediterranean. Now at this national inquiry some very interesting facts came out, which yet again show the way the Grand Fleet and Auxiliary Patrol reacted on each other. No less an authority than Admiral von Capelle (who succeeded Von Tirpitz as Minister of Marine) stated before this committee that the Battle of Jutland was one of the main reasons why Germany built so few submarines in 1916, and consequently had so few of them ready by February, 1917. What had Jutland to do with it? Just this. Germany needed every available man for her fighting forces and munitions and dockyards. Capelle admitted that the damage which our Grand Fleet did to the High Seas Fleet was so serious that they had to take workmen away from submarine construction and put them on to repairing battleships. Secondly, he mentioned that five submarines were required for each station. Of these one was actually at work, another was on her way home, a third was going out to relieve the first, and two were being overhauled in dockyards.

---

* 'Germany's High Sea Fleet in the World War,' p. 260.

We have evidence of the effect which the Dover barrage had on submarines about this time. In the case of U 54, for example, after leaving Heligoland, she got caught in these nets and actually remained entangled for several hours until she cleared herself and carried on down Channel to her station out in the Atlantic. One of the favourite spots to negotiate the Dover nets was between buoys Nos. 1 and 2. This is where UC 17 got caught in the net, but she managed to break through with over fifty yards of it hanging to her. This she got rid of by going astern.

Now, in reply to this fiercer campaign, among the other steps taken was especially the use of the hydrophone, which was yet by no means perfect, but was rapidly improving. Officers were detailed to the Auxiliary Patrol to superintend this work, start a systematic course of instruction for crews, and then the hunting flotilla idea was developed gradually till it became a terror to the enemy. The first units organized to hunt submarines with hydrophones were the Ægean drifters, which began in the same month as this unrestricted warfare. Organized in divisions of seven, the leader in the centre, the whole division was moved according to the direction of that drifter which had heard the submarine.

Then in June four M.L. hunting flotillas were formed, each flotilla consisting of six. These were based on Newhaven, Portsmouth, Portland, and Dartmouth. The result was that during the ensuing three months many engagements took place. The submarine would be heard on the hydrophone, then hunted till she was sighted and depth-charged. Now, even if a submarine was neither destroyed nor damaged on every occasion, the effect was great. Ask any British submarine officer to tell you his experiences when he was mistaken for an enemy by some of our craft and attacked with these 'water-bombs,' as the enemy called them. Imagine the nerves of the German submarine crew after being ceaselessly hunted for days, receiving an occasional explosion over them. It needs only a little bad weather and a sea-lawyer aboard any such submarine to cause an irresolute spirit throughout that craft. Thus the cumulative effect of these hunting flotillas was very great. Owing to their success, other M.L. hunting flotillas were formed in the spring of 1918 at Peterhead, Granton, the Tyne, Humber, Great Yarmouth, Lowestoft, the Nore, Portsmouth, Littlehampton, Portland, Torquay, Newlyn, Swansea, Holyhead, Larne. These M.L.'s were organized usually into groups of three, the senior ship being fitted with wireless. Armed with depth charges as well as their gun, these hydrophone motor craft were not loved by the enemy.

During the following year the newly introduced American C-tube hydrophone was fitted to most of these hunting M.L.'s, and they were to be seen by day patrolling in line abreast as far apart as visibility and signalling would allow by means of their Aldis flashing-lamp or semaphore. During night or thick weather they stopped their engines so as not to give away their presence and drifted, listening on their hydrophone. Some R.N.V.R. officers even had a great square-sail made to allow the M.L. thus to move without using her engines, for obviously the submarines were listening on their hydrophones, too.

Presently other bases were added, such as Bridport, Padstow, Menai, and Whitby at home; and Gibraltar and Otranto abroad. These craft acted also as convoy escorts from such places as Larne, the Tyne, Humber, and Newlyn. But it was when in the summer of 1918 they began to carry ten instead of four depth charges that they were a very deadly menace to the enemy.

Off the east coast of England the warfare which had begun in August, 1915, between our disguised armed sailing smacks and the Flanders submarines continued. It was risky work fighting in this fashion, but some of these fishermen became positive experts at the game. One was Skipper W. S. Wharton, who had been in several of these engagements and earned a D.S.C. and bar. Another similar fine character was Skipper T. Crisp, D.S.C., about whom we shall speak presently. But it was wonderful what punishment submarines could stand without being destroyed. The trawler *Swallow* (Lieutenant J. Dixon, R.N.R.) was on patrol off Whitby one morning in February, 1917, when she sighted a periscope, went full speed at it, struck the submarine close to the conning tower with such impact that the *Swallow's* bow was knocked violently to starboard, yet the enemy was not sunk.

In the Mediterranean the submarines were not liking the Adriatic barrage, and were crossing it with great caution at night. They dreaded the vigilance of our auxiliary craft across the Otranto Straits. What they hoped for was a dark, dirty night when the nets would not be in strict position and visibility was difficult. They would then rush across on the surface, like their opposite numbers in the Dover Straits. If they were ahead of their time, the submarines would wait off the Adriatic entrance till it was dark. I have examined about a dozen cases of these Adriatic submarines negotiating the Otranto barrage, and in every instance they succeeded by navigating on the surface at night—not submerged by day. We may therefore assume this to have been a general practice, especially as it is borne out by other evidence; and there are instances where they waited a whole twenty-four hours because of the patrol. It thus shows that by night the drifter-nets were scarcely more useful here than in the Dover Straits. These Mediterranean craft used to call at the Syrian port of Beyrout for water, and at night they would hoist their wireless masts and communicate with Germany direct.

By the middle of February, 1917, there were fourteen divisions of drifters on this Otranto barrage. There were about seven drifters to each division, and from 3 p.m. to daylight there were eight divisions always there with nets out. From daylight to 3 p.m. there were always seven divisions, one division leaving the line always at daylight for Taranto, and one leaving Taranto at 3 p.m. for the line, the passage averaging twenty-four hours. It was therefore a disadvantage that their base for refitting, coaling, and repairing of nets was such a long way off. The line itself was controlled by three officers in turn, accommodated in the drifters. As to the Adriatic M.L.'s, they were based on Gallipoli, as already stated, and every day left at dawn to patrol off the coast between Tricase and Otranto, returning to Gallipoli at dark.

We have information that the drifter-nets across the St. George's Channel from the Smalls to the Tuskar were a source of anxiety to the enemy, and on one occasion UC 65 found herself surrounded by these craft, so that only by submerging to 200 feet was she able to get clear of this screen. But rather a curious event occurred on February 22, 1917, which was extremely inconvenient to Germany. Eight Dutch steamers for mutual protection left Falmouth this evening, but when off the Scillies were attacked by U 21, so that they were all abandoned; but two were salved by trawlers and a Q-ship, the Auxiliary Patrol further assisting the two hundred shipwrecked Dutchmen.

Now these eight vessels had been given a safe-conduct by Germany. The captain of U 21, as the reader will remember, was the famous Hersing. After having served in the Mediterranean since April of 1915, he was now bringing his craft home to Germany, and the sight of these eight ships was too much for him. He was unaware that his Government had granted the safe-conduct, and after long negotiations Germany consented to compensate Holland. Hersing carried on and duly reached Wilhelmshaven.

On February 25 the enemy attempted another destroyer raid on Dover Straits. Since the incident of October 26 the drifters had been withdrawn from the barrage at night, their places being taken by a division of destroyers, who patrolled south-west of the buoys. Off Deal two light cruisers plus a division of destroyers were stationed, off Ramsgate a monitor, and another off Deal. There were also the Ramsgate armed drifters and a torpedo-boat patrolling the northern approach to the Downs. The raid this night was frustrated. About 10.30 p.m. our destroyer *Laverock* sighted an enemy destroyer near 11A buoy coming south-west, having crossed the barrage probably a little further west of this. How did the enemy get over? The answer is that it was almost impossible to keep the upper part of the net up to the surface in the cross-tide. After a brief engagement with *Laverock*, the enemy destroyer made off to the north. But about half an hour later there was a second attack, this time by a division of them, but off the North Foreland. The Ramsgate drifters were patrolling between North Foreland and the North Goodwins when one of them, the *John Lincoln*, sighted three German destroyers steering north along the coast. These three opened fire towards the North Foreland and presently towards Margate, involving slight damage to house-property and killing a woman and two children. But the *John Lincoln* had sent up a green rocket to warn our surface craft, and then the enemy made off towards Zeebrugge. So nothing came of this raid.

The next raid occurred on the night of February 17-18. About half an hour after midnight the Ramsgate armed drifter *Paramount* sighted three or four enemy destroyers coming from the north-east, close to the S.S. *Greypoint*, which had been compelled to anchor two days previously off the Broadstairs Knoll Buoy owing to engine-room breakdown. The drifter sent up her warning rocket, to which the enemy replied by firing at the drifters and torpedoing the *Greypoint*, and presently turned tail, making off homeward; but on the way again shelled the drifters and the sinking *Greypoint*, besides bombarding Ramsgate and Broadstairs. Our torpedo-boat tried to get up to the enemy, but the latter's superior speed enabled them to get away. One of the drifters, *Redwald*, was seriously damaged and had to be beached. She had been hit several times, two boxes of her 'ready-use' shells had been exploded, wounding the skipper and trimmer and six other men. The whole crew of

Greypoint were rescued by one of the other drifters, *R.R.S.*

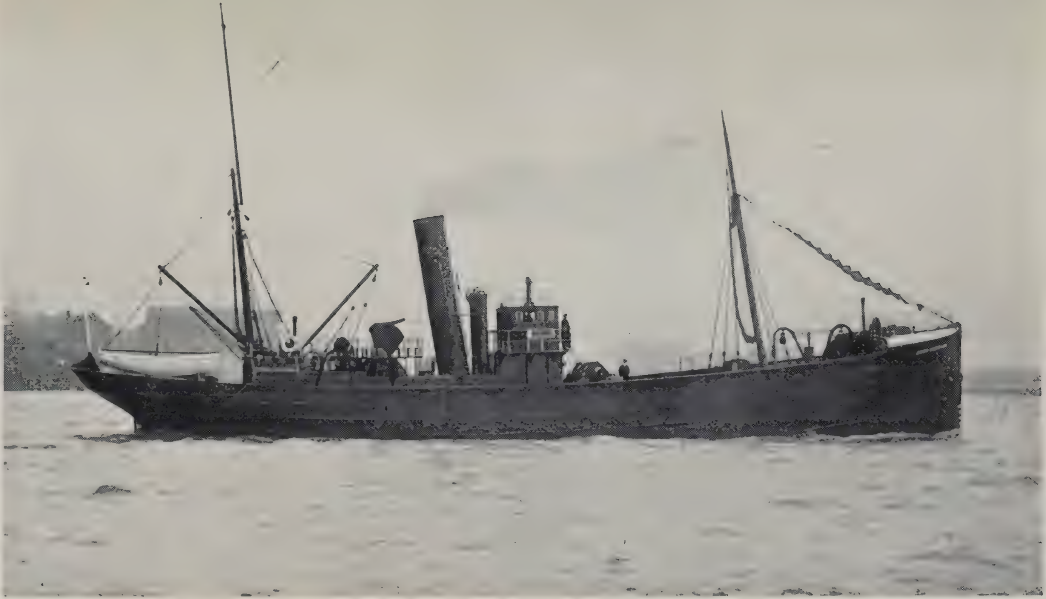
But to-night's raid had also been in two parts, for at 10.50 p.m. the destroyer *Paragon*, whilst patrolling south-west of No. 11A buoy,* sighted three or four enemy destroyers coming from the eastward. *Paragon* was torpedoed, shelled, and sunk, survivors being eventually picked up by the *Laforey*, a destroyer, and M.L.'s sent out later from Dover. Only ten men survived. After sinking *Paragon*, the enemy torpedoed the destroyer *Llewellyn*, and thus two of the four destroyers patrolling the barrage were put out of action. *Llewellyn* did eventually manage to make Dover. Afterwards guns were mounted on the cliffs in the North Foreland neighbourhood and there remained till after Armistice. The Dover barrage patrols were modified by having a couple of flotilla leaders, *Swift* (Commander A. Peck, R.N.) and *Broke* (Commander E. R. G. R. Evans, R.N., of Antarctic fame), to patrol the western part of the barrage from No. 5A buoy to south-west of the South Goodwin Lightship and a division of destroyers patrolling south-west from 11A buoy.

On the night of April 20-21 six enemy destroyers left Zeebrugge, crossed the Dover barrage somewhere near 2A buoy, passed through towards Dover, without being sighted by our two flotilla leaders, about 10.30 p.m., shelled Dover, and engaged the armed trawler *Sabreur* (Skipper Robert Scott), who was on patrol off the harbour. The first he knew of the enemy was the bursting of a shell in front of his wheelhouse. He extinguished his lights, and, being armed only with a 6-pounder, avoided action with this superior force and made for Dover ; for a direct hit had been received on the engine-room casing, a shell had burst in the stokehold damaging bulkheads and bunkers and injuring the trimmer. The marvellous thing was that so little damage was done. The remaining events of that night do not concern the Auxiliary Patrol craft, but one of the finest destroyer engagements in history took place, comparable only with the famous old frigate actions. For presently the enemy were encountered by *Swift* and *Broke*, and a hot fire was opened by both sides almost simultaneously. *Swift* chased the enemy as far as the barrage and came back to assist *Broke*, who had succeeded in ramming one enemy destroyer, and then completed the destruction of a second. Both these enemy ships sank. Six nights later another destroyer raid was made on Thanet, but this was of little importance.

---

* See Plan on p. 195.

Now the result of this brilliant action by *Swift* and *Broke* was to convince the enemy that at last the barrage was too strongly protected to make it worth while raiding it in this way, and it was not until the following February that the attempt was repeated. There began now a series of attacks by aircraft. Thus on May 25 and June 1 the drifters on this Goodwins-Snou barrage were in action with enemy aeroplanes, though on the morning of March 29 two German seaplanes crossing the barrage had been attacked by a drifter. By the middle of June four of the barrage buoys had been damaged by the machine-gun fire from enemy seaplanes, the object doubtless being thus to sink buoys and nets, allowing an easier passage for the submarines. But there were a score of drifters plus M.L.'s patrolling along the line, and two of these seaplanes were fortunately shot down. Before, however, the month was out the seaplane machine-guns succeeded in sinking Nos. 10A and 11A



Armed Trawler 'John Cormack'

This is one of the Admiralty-built Mersey Class. The gun is mounted abaft the funnel.

To face p. 190

buoys, though they were soon replaced. These two were at the corner of the barrage-line near the Sandettie Shoal, the spot being a favourite place for the enemy to use in crossing the barrage.

It should be mentioned that this barrage continued to give trouble, and was still far from stopping enemy submarines. By the end of 1917 more buoys were laid down, so as to lift the heads of the nets higher. Those officers who served in the Dover Patrol will tell you that now the buoys were only 250 yards apart, but the nets were still not close enough to the surface to prevent the submarines traversing them on the surface where this curtain sagged with its own weight. Then the mines which had been laid down to back up this barrage had by the summer become such a danger to our drifters working about the nets that the mines had to be swept up. The buoys and nets were weighed at the same time, and deeper nets were now laid again between the Goodwins and Snou.

The position by the end of the summer, then, was that the enemy had long since ceased to raid by destroyers the Dover Straits, but that his submarines had been negotiating the barrage to an extent which, when definitely known, was quite alarming. Moreover, they still continued to make these passages. In plain language, the net-barrage was no barrage at all; it did not prevent the enemy, but it did cause to be employed a number of craft and men who might have been used better in other ways. From November, 1917, this net-barrage idea was recognized as a failure, and an entirely different and more scientific scheme was instituted. It took months to put it into practice because of the enormous size of the undertaking; but it was sound in plan, splendidly carried out, and eminently successful in sinking submarines.

This new scheme for denying the Dover Straits to enemy submarines consisted primarily of mines, but included also electrical devices for locating the enemy, illuminating the surface of the minefield by flares, and having patrol craft so placed that the enemy on being chased would submerge into this field and thus blow up. It was not till November that the new and reliable type of mine and sinker were available. At the end of the war some very interesting facts were disclosed before a technical society in a paper written by Commander A. L. Gwynne, R.N., the Admiralty mining expert. According to this officer we possessed in 1914 only a few deep-sea mines, and none for the protection of our ports, though both Russia and Germany were fully prepared in this regard. We had very few data at the beginning of the war on which to work; the production of non-porous castings and even suitable glass for the horns of these mines gave us many difficulties. But after much study, experiment, and examination of the enemy's mines, we had by November obtained a reliable article, dependable and efficient. We manufactured as many as 10,000 a month, and 980 firms were employed in turning these out.

It was on November 21 that the first of this new mine barrage was laid, the selected area being further down Channel, between Folkestone and Gris-nez. Some thousands of mines had to be deposited, so that it was not till the following October that the job was completed. And then on November 11 came the Armistice. Besides the big mine-laying ships, the trawlers were largely responsible for this dangerous work. At the beginning of this volume I criticized the absurd suggestion of unseamanlike politicians that the enemy should have sent trawlers all the way across the North Sea to lay the Tyne minefield. But it was a very different matter employing trawlers in the Straits, close to Dover. Even then no trawler was able to carry more than two dozen mines, and she had to fetch them from Portsmouth.

So far had this new mine barrage between Folkestone and Gris-nez progressed that in May, 1918, the old net barrage was abandoned, though in the following August it began to be reinforced by fresh mines from east of the Goodwins to the West Dyck, abreast of Gravelines. But no nets were laid; that idea was finished so far as the Dover Straits were concerned. About a week after a beginning was made with this new barrage, UB 81 passed through the old barrage by No. 16A buoy on her maiden voyage, her captain being one of the ablest of the Flanders submarine officers. But the Dover Patrol had not long to wait for proof of the new scheme's efficacy. Even in its incomplete state the Folkestone-Gris-nez mine barrage was already deadly, for, using the usual tactics of travelling through barrages by night, UB 56 just before midnight of December 19-20 hit one of the mines and was destroyed in a terrible explosion, and only a petty officer could be found. Although everything was done to revive him, he died.

Thus within the first few weeks the new barrage promised the success which it in fact fulfilled. But the enemy presently was to bring off a raid on the Straits that was to work havoc among the Dover drifters. In the next chapter we shall see this and also the condition of affairs that had been going on all this time in the Otranto Straits.

CHAPTER XIII

DESTROYERS OF DRIFTERS

In connection with the new scheme of deep mines, there were laid between what was known as the 'Folkestone Gate,'* and Cape Griz-nez a series of buoys numbered 11, 12, 13, 14, 15, and 16. These were to assist the drifters to keep in position. In order to visualize the incidents which follow, it is necessary to imagine about two and a half miles either side of this line of buoys a number of vessels stationed, illuminating by their flares any submarines who might be on the surface and thus cause them to submerge into the deeply laid minefield, over which *surface* craft could patrol. The illuminating ships consisted of trawlers burning flares, in addition to some of the old 30-knot destroyers, the new P-boats, the paddle mine-sweepers, and the Monitor 26, who all burned their searchlights. This monitor, by the way, was stationed near the north-east Varne buoy.

Thus it was left to the drifters to patrol the surface and chase submarines, though the former were armed with nothing better than a 6-pounder. That mattered now not so much as formerly, for the great thing was to pursue the submarine so that he dived to destruction. You have only to put yourself in the place of

---

* This was a relic of the Folkestone-Gris-nez net barrage already mentioned. The boom was never completed, but removed to the Firth of Forth. The two lightships called the 'Gate' remained.

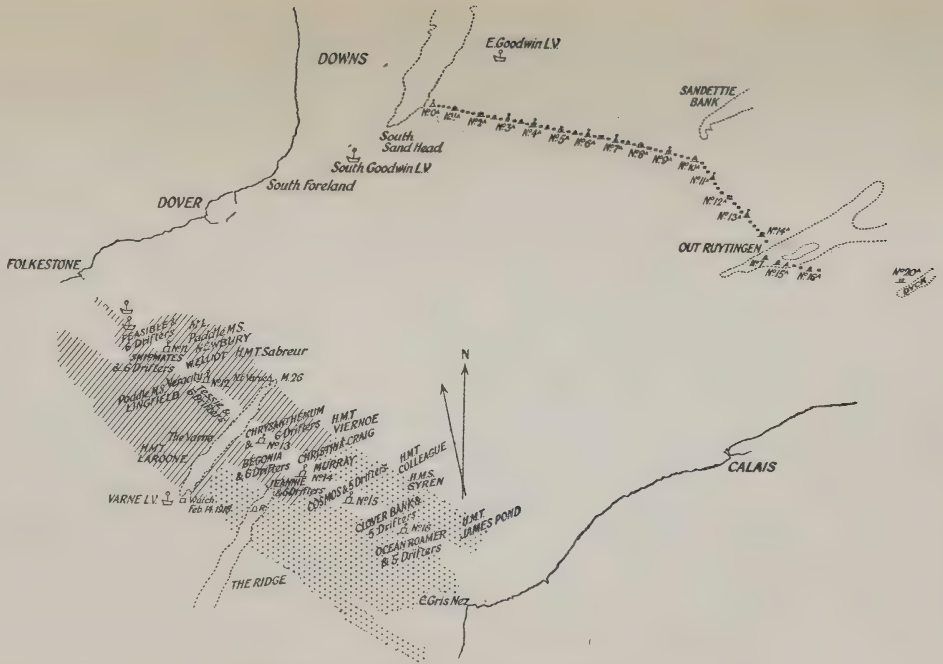

DOWNS
E.Goodwin L.V.
SANDETTIE BANK
South Sand Head
South Goodwin L.V.
South Foreland
DOVER
FOLKESTONE
No. 0A
No. 1A
No. 2A
No. 3A
No. 4A
No. 5A
No. 6A
No. 7A
No. 8A
No. 9A
No. 10A
No. 11A
No. 12A
No. 13A
No. 14A
OUT RUYTINGEN
No. 7
No. 15A
No. 16A
No. 20A
DYCK
FEASIBLE & 6 Drifters
K.L.
Paddle M.S. NEWBURY
No. 11
SHIPMATES & 6 Drifters
W. ELLIOT
H.M.T. Sabreur
Veracity
No. 12
N.E. Varne
M.26
Paddle M.S. LINGFIELD
Jessie & 6 Drifters
The Varne
H.M.T. LAROONE
CHRYSANTHEMUM & 6 Drifters
No. 13
H.M.T. VIERNOE
CHRISTINA CRAIG
BEGONIA & 6 Drifters
MURRAY
No. 14
JEANNIE & 6 Drifters
COSMOS & 5 Drifters
No. 15
H.M.T. COLLEAGUE
H.M.S. SYREN
CLOVER BANK & 5 Drifters
No. 16
OCEAN ROAMER & 5 Drifters
H.M.T. JAMES POND
VARNE L.V.
Watch Feb. 14. 1918
R.
THE RIDGE
C. Gris Nez
CALAIS
N

FIG. 10.—PLAN OF DOVER STRAITS.

This shows the Goodwins-Dyck barrage and also the position of the Folkestone-Gris-nez deep minefield. The positions are shown of the Auxiliary Patrol on the night of the raid of February 14-15, 1918.

a submarine captain and consider the state of his nerves. He has been thinking about the Dover Straits all the way from Zeebrugge or the western end of the English Channel. He has chosen the dark hours for this tricky passage with its nets and strong tides, its mines and patrol craft. He has succeeded time after time, but those stolid English are beginning to wake up, and they may have a surprise or two. But to-night they have started an entirely new idea; they have lit up the sea like day. The submarine is travelling on the surface, when suddenly she finds herself illuminated. Immediately, too, from nowhere there comes one of those familiar little drifters with her slow gait; then another from over there. Very conscious of her own conspicuousness in the glare, and wishing not to fight patrol craft but get on with the voyage, the submarine decides to dive. But before she has disappeared many seconds there comes the most awful explosion, the steel hull is holed, and down she goes to the sea-bottom for the last time till the crack of doom.

With regard to the old net barrage further up the Straits, this was being patrolled on its southward side again by *Swift* and *Marksman*, each of them flotilla leaders, plus four destroyers to the southward of that important corner between 11A and 9 buoys. One of these four was the *Zubian* (ex-*Zulu* plus *Nubian*). Now the night of February 14-15, 1918, was suitable for a raid. The weather was fine, overcast, with patches of haze. The sea was calm, the moon set at ten o'clock, the north-east stream began at midnight. There can be no doubt that submarine captains had reported that these Dover flares and drifters—I believe the secret of the deep mines was well kept for a long time—were a great nuisance. It was so long since destroyers had raided the Straits ; not since *Swift* and *Broke* settled them. But now, since submarines meant everything to Germany in this great gamble to starve us out (as our blockade had made them suffer), something must be done to wipe out this fresh scheme that hindered the passage of the U-boats, UB's, and UC's.

On this night there were fifty-eight drifters patrolling between the Folkestone Gate and Gris-nez, consisting of nine divisions, each divisional commander being a lieutenant R.N.R. or R.N.V.R. The illuminating vessels to-night were to the north-west and south-east of the Varne Shoal. The former consisted of the paddle mine-sweepers *Newbury* and *Lingfield*, the trawlers *Sabreur* and *Laroone*. The latter were the three trawlers *Viernoe*, *Colleague*, *James Pond*, and two others, the destroyer *Racehorse*, P 50, and M 26. The two M.L.'s 12 and 272 were also on the minefield patrol. Illuminated by a continuous glare, the whole area of the minefield produced much smoke, dazzling and blinding the crews of the flare-ships.

Just before midnight an enemy submarine was sighted to the southward of the Folkestone Gate but escaped. About an hour later the trawler *Sabreur*, when about five miles south-east of this gate, suddenly saw four enemy destroyers pass across the beam of Folkestone Pier searchlight, though the skipper not unnaturally took them for our own destroyers proceeding to hunt the submarine. But then the leading destroyer blew three blasts on her siren, and fire was opened on the paddler *Newbury* and she was immediately riddled, her depth charges exploded on deck, causing severe damage and heavy casualties. Having circled round this paddler, shelling her both sides, the four destroyers then steamed slowly down the drifter line using their searchlights. There followed a list of disasters; for between Nos. 11 and 12 buoys* they sank the drifter *W. Elliott* of the *Shipmates* division and also the drifter *Veracity*, which had been ordered by *Tessie* (the senior officer's ship of the next division) to make fast to No. 12 buoy, as the latter's lighting mechanism had broken down. The rest of *Tessie's* division escaped towards the north-east Varne under a heavy fire. The paddler *Lingfield* came up to see what the firing was and was received in the same fashion, as was an M.L.

This attack had taken about half an hour, and the enemy then made off across the net barrage again, and by this time the *Newbury* was nothing but a disabled hulk with nearly all her ship's company killed or wounded. But there was also another attack, carried out by three enemy destroyers, which began about 12.45 a.m., and against the south-eastern patrols—that is to say, the area from Gris-nez to the Varne. This onslaught commenced near No 16 buoy with the shelling of the trawler *James Pond*, which was the southernmost vessel of the line of illuminating ships. Steaming round her, the three destroyers sent in a heavy fire, piercing the fo'c'sle in many places, one shell exploding in the wireless room, killing two operators in their bunks and severely wounding a third, who died. The explosion in the fo'c'sle set on fire some of the flares, and the whole fore part of the ship became ablaze.

The commanding officer of the *James Pond* was Skipper A. E. Berry, who had won the Distinguished Service Cross, you will remember, for his gallant mine-sweeping at the Dardanelles in the spring of

---

* The reader, of course, will not confuse these with the numbered buoys of Goodwins-Snou barrage.

1915, so he was no stranger to German shells. Since then he had again been mentioned in despatches for his fine work at the Dardanelles up to the time of the evacuation. And now he was back in home waters in command of one of the new Admiralty-built trawlers (launched in 1917), and promoted to the recently instituted rank of chief skipper, which was awarded only to picked men. Many would have thought that after this skipper had left the Dardanelles he would never approach so near to death's door. But to-night a shell entered his cabin, then exploded, wounded him in the legs, and set fire to the wheelhouse. As before, this fine British fisherman remained cool and collected throughout, in spite of his wound, and immediately ordered all hands to lie down until the firing had ceased.

After the firing was over and the enemy had gone, the trawler crew tried to put out the conflagration, and as this was no use, Skipper Berry gave the order to abandon ship, and with themselves and the dying wireless operator in the boat they began to row towards the French coast. After a few minutes the *James Pond* blew up. The small boat was beached at Wissant, where the survivors were taken care of by British, American, and French officers. The captain of the Dover Trawler Patrol afterwards wrote to the Admiral: 'I cannot too strongly commend Chief Skipper A. E. Berry, R.N.R., Skipper Henry Bennett, Second Hand Alfred Boynton, and Engineman Alexander Sandison for their cool, courageous, and gallant conduct on this occasion; they all behaved with the well-known courage and fearlessness of the Mercantile Marine and its fishing fleets, when difficulties and dangers are to be overcome.'

After shelling the *James Pond*, the enemy had continued north-west along the line shelling the drifter *Clover Bank*, so that she got on fire and then sank, with only one survivor. Near No. 15 buoy they sank the drifter *Cosmos*, with only three survivors, and then near No. 14 the drifter *Jeannie Murray*, with the loss of all hands. It should be added that these three were all senior ships of their respective divisions, and no officer was saved. In addition, the drifters *Golden Gain*,* *Golden Rule* of *Cosmos* division, and *Treasure* and *Violet May*, of *Jeannie Murray's* division, were all damaged. The *Violet May* had quite an exciting time. When the enemy began shelling this division, the two enginemen gave this drifter all the steam possible, and then the first shell struck her wheelhouse, killing the skipper and every man in the neighbourhood. After the second salvo there were alive only the two enginemen below, as well as the mate and one deckhand on deck. And now the boiler was struck and burst, the main steam-pipe gave out, and the ship was on fire. The 'small boat' (as the drifter men always call their dinghy) was launched, and with difficulty the two enginemen lifted in their two pals; for the mate had been so badly hit that he could hardly crawl, and the deckhand had been wounded in the knees.

---

* Many readers will remember Mr. Kipling's poem written in 1914, of which the first verse runs as follows. He calls *Golden Gain*, however, a trawler. She was, like the *Golden Rule* and the *Golden Effort*, a drifter, not a trawler.

"Dawn off the Foreland—the young flood making
   Jumbled and short and steep—
Black in the hollows and bright where it's breaking—
   Awkward water to sweep.
'Mines reported in the fairway.
Warn all traffic and detain.
Sent up *Unity*, *Claribel*, *Assyrian*, *Stormcock*, and *Golden Gain*.'"

But at this stage the plucky enginemen decided to make fast the boat and see if the fire could not be put out. Away they toiled, with the small arms ammunition in the wheelhouse going off over them, the burning beams from the wheelhouse falling on to them, and the dead bodies of their shipmates on the deck. But such progress did these two men make, and such was their optimism, that they decided to bring back the two wounded men aboard. Then, saturating some old clothes in paraffin, they burnt these as flares from three in the morning for the next four hours, when the drifter *Courage* came alongside and towed the craft into Dover. Courage? Yes, there was plenty of that aboard the little *Violet May*, and those two enginemen, J. Ewing and A. Noble, well deserved the Conspicuous Gallantry Medal with which they were decorated. They had certainly saved the shattered ship and the other two men, but unfortunately the mate died of his wounds in Dover Military Hospital.

But we have not finished. Luckily the enemy missed the drifter *Begonia's* division near No. 14 buoy, but opened fire on the *Chrysanthemum's* division near No. 13, sinking the *Christina Craig* with all hands. He had now reached the Varne, so turned sixteen points, and on the return trip, sank the drifter *Silver Queen* of *Cosmos* division. For the former had taken off the survivors from *Cosmos* and then set a course for Dover, but had the bad luck to run into the returning enemy. It may be added here that when the enemy put his searchlight on to *Cosmos*, the first shell killed Lieutenant D. Livingstone, R.N.R., took off the head of one of the crew, broke the skipper's arm and the gunner's leg. The gun's crew were unable to get to their gun as the ship was quickly one mass of flames from foremast to wheelhouse, so they got in their boat and were picked up by *Silver Queen*, who also became a mass of flames and steam in her turn.

Unfortunately on the occasion of this raid the enemy got away without being brought into action, chiefly owing to the lack of a warning signal. One trawler and seven drifters had been sunk, one paddler and six drifters damaged ; twenty-two killed, including Lieutenant R. A. Crafter, R.N.R., Lieutenant N. Fraser, R.N.R., and Lieutenant D. Livingstone, R.N.R., as well as seven skippers, all of whom had done splendid service both in the Dover straits and off the Belgian coast ; fifty-four missing and thirteen wounded. Yes ; it had been a terrible night for the gallant Auxiliary Patrol, but it was a testimony to the stranglehold they were at last putting on the submarines, and from now to the end of the war that grip was becoming so tight that had Armistice not come when it did, the submarine menace, as far as the Dover Straits are concerned, would have become practically non-existent.

It is interesting to compare Admiral Scheer's version of this raid. He says that the Flanders Naval Corps requested the High Seas Fleet to destroy the new British ‘ light barrier ’ across the Dover Straits, because now ‘ the Straits were actually almost impassable.’ (Several submarines had experienced narrow escapes, and between December 18 and February 9 there had been destroyed in the Dover area : UB 56, UB 35, U 109, UC 50, and UB 38.) According to Scheer the High Seas Fleet sent the Second Flotilla direct from the German Bight, and at 10.30 p.m. the flotilla separated into two half-flotillas north-east of the Sandettie, and proceeded to carry out the attacks to the north-east of the Varne. Scheer wrongly states that they sank a U-boat chaser with the number '1113', for no such craft existed. I think he must mean ML 12, whose painted designation of two letters and two numerals on bows and stern might have been misread in the smoke and glare when this craft was shelled. With regard to the attack south-west of the Varne, Scheer refers to the sinking of 'the first guardship,' *James Pond*, but again errs in claiming to have then sunk 'twelve armed guardships and two motor-boats.' The enemy went into Zeebrugge, though one of them struck a mine off that harbour. On the following night a German submarine bombarded Dover about midnight, evidently in order to attract out our patrols on to some mines which she had laid and were afterwards discovered. But the bombardment availed nothing, only one child being killed and some adults injured.

We have thus seen the Dover Straits subject, as they always would be, to raids by surface ships, but at length becoming efficient against submarines only after many months of war. But before we note the instances of the sinkings, let us see how the eternal problem was being tackled by the Otranto drifters in the Adriatic. By May, 1917, the first British seaplane base had been established up the Gulf of Taranto and air-patrols were working in the Straits against the submarines. It was during this year that the drifters, after all those months in these southern waters, were beginning to get into bad condition materially. Most of these craft are built of wood, being the immediate descendants of the sailing drifters, though some of the steam drifters were built of steel. In Italian waters the worm got into the underwater planking to such an extent that many of them began to leak as badly as the Elizabethan ships which, according to Hakluyt, suffered from the same defect. Drifters of wood had therefore to be sent to England and steel-built ones went out to take their places.

During April the Adriatic drifters, instead of netting a fixed line, operated in such a way that the enemy would never know where the nets were placed, the position being changed from week to week. In order to prevent M.L.'s being taken for submarines, they were on this patrol painted with white diagonal stripes; and operated five miles from the drifters so as to make the enemy dive. But already the real weakness of these drifter nets was at last beginning to be appreciated; something more definite, taut, and reliable was wanted. Bad weather was the time when the drifters were compelled to haul in their nets, or at best to become scattered; but, as we have seen, this was the very time the enemy chose for getting through. It was decided by the Allied naval experts that a *fixed*, as opposed to a drifting, net should be placed across the Straits. The submarine menace in the Mediterranean was already most serious. And with only about seventy drifters, on the average, normally on duty trying to make forty-four miles of sea impenetrable, it was aiming at the impossible: gaps were inevitable.

During the year the same inevitable conclusion was arrived at with regard to the North Channel nets between Rathlin and the Mull of Cantyre. The drifter-nets were no longer to be considered an effective protection for the approaches to the Clyde and Irish Sea. Only deep-laid mines could guarantee the state of efficiency. But when so many demands were being made in so many different ways, it was impossible to satisfy every need immediately; so it was not until April, 1918, that a large deep minefield was begun off the North of Ireland to thwart enemy submarines. The mines were laid by the United States ship *Baltimore*, but in fact the entire field was never completed. However, by the autumn of 1917, the North Channel was depending rather on hydrophones than on nets. Thus, a line of hydrophone drifters was stretched on patrol across the mouth of the Clyde and another line from the Mull of Galloway to Skulmartin (south of Belfast). The convoys of shipping passing through this anxious North Channel were screened by the patrol vessels based on Larne, while M.L.'s and drifters scoured the district with their hydrophones.

And now the Adriatic barrage was to have its raid, and the losses which the drifters thus suffered were in excess even of those in the greatest raid on the Dover Patrol. It is not without emotion that these incidents are related. It always seemed to me that although they were most certainly warships, properly commissioned as such and appearing in the Navy List, yet when a drifter or trawler was engaged in either minesweeping or attached to her nets, she never had a fair chance. No one objects to a fight, provided he has a sporting opportunity. But sweeping or netting, what can you do to retaliate? You are doing a duty that is monotonous for two or three years, and then in the twinkling of an eye you have the concentrated excitement of a lifetime in a few minutes.

So it was with these Otranto drifters. All their lives these men had been lying to their nets, either for herrings or submarines. Their minds and mode of life were circumscribed by nets, they handled them afloat, they repaired them when they came ashore.

The special seamanship required for this barrage work was theirs by generations; but to resist an attack by modern, fast, powerfully armed cruisers or destroyers was another matter. Now, in the early hours of May 15, 1917, the M.L.'s were patrolling off the shore, and the drifters were with their nets across toward the Albanian coast. There were eight divisions, but the sixth had at about 3 a.m. taken her nets in and left the line on the way back towards the Taranto naval base. Daylight that morning was at about four o'clock. (All times Central European Time.) Now, about an hour before, without any warning, there suddenly swooped down across the drifter-line three four-funnelled Austrian light cruisers from north to south. Having thus located the craft before it was yet light, they returned at 4 a.m., and whilst one cruiser started attacking the drifters at the western end, another cruiser began similar work from the eastern end—after the manner of the German destroyers—and another was at work in the centre of the line.

Knowing the weakness of the drifters, the attack was made in a deliberate fashion, the cruisers actually stopping to fire, and taking prisoners from several drifters. At the end of three-quarters of an hour the enemy ceased fire and proceeded to Cattaro. The Austrians behaved quite chivalrously, giving opportunities for the drifters' crews to abandon ship. But all the same, the enemy killed one officer and seventy of our men, taking eight officers prisoners. Now, each of these cruisers was armed at least with nine 4·1-inch and two 12-pounders, as well as torpedoes. The drifters had nothing better than a 6-pounder, and they were secured to their nets; yet such was the brave fighting spirit of these fishermen that several drifters actually dared to engage the cruisers and even obtained hits! Laughable impudence for a drifter to engage a cruiser? Perhaps it was ludicrous, but it was magnificent. Thus perished some of those little ships with which the reader is now well acquainted—*Admirable*, *Avondale*, *Coral Haven*, *Craignoon*, *Felicitas*, *Girl Gracie*, *Girl Rose*, *Helenora*, *Quarry Knowe*, *Selby*, *Serene*, *Taits*, *Transit*, and *Young Linnet*: fourteen of them.

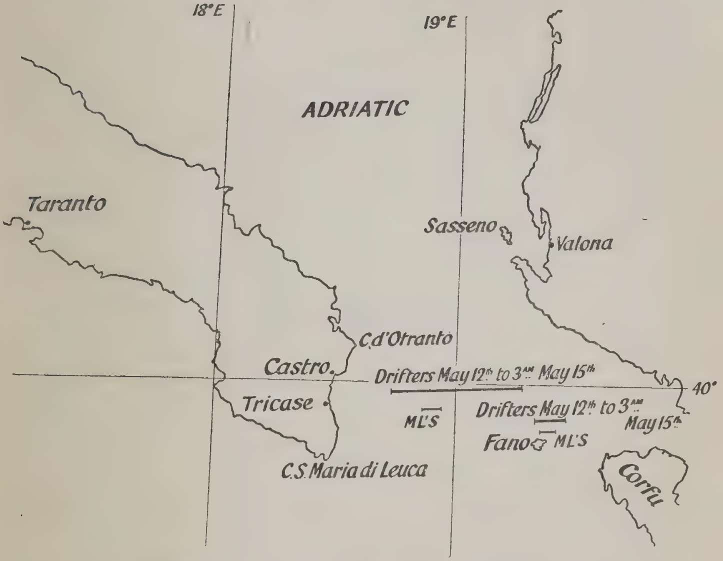

18°E
19°E
ADRIATIC
Taranto
Sasseno
Valona
C.d'Otranto
Castro
Drifters May 12th to 3 A.M. May 15th
40°
Tricase
ML'S
Drifters May 12th to 3 A.M. May 15th
Fano
ML'S
Corfu
C.S. Maria di Leuca

FIG. 11.—PLAN OF OTRANTO STRAITS.

To illustrate positions of drifters and M.L.'s on the occasion of the raid of May 15, 1917.

At the time of this raid a couple of M.L.'s were patrolling three miles south of the drifters, but were not attacked. They were of great use in communicating to passing vessels the news of what had happened and in taking wounded to Gallipoli. In considering and comparing this raid with those on Dover, Cattaro represents Zeebrugge and Brindisi takes the place of Dover. Now, the retreating Austrian cruisers were not to have it quite all their own way; for, at five that morning, the British light cruiser *Bristol* with two Italian destroyers left Brindisi, and half an hour later the British light cruiser *Dartmouth*, also with two destroyers. An action was begun at 9.30 a.m. and went on for two hours, by which time Austrian capital ships had come out; but two hours later *Dartmouth* was torpedoed by a submarine, though got into port. The enemy had evidently been quite subtle, though I suspect there was a German mind at the back of it. For he destroyed a large part of the barrage, thus paralysing this for a time. He knew that this engagement would bring the allied naval ships out of Brindisi, so while the three Austrian cruisers raced up the Adriatic towards the shelter of their capital ships, his submarines lay across the track of the retreating allied force and bagged one. In addition to this, the submarines had laid mines very close to Brindisi, well knowing why. The French destroyer *Boutefeu*, going out to help *Dartmouth*, struck a mine outside the boom and so blew up.

The result of this drifter loss immediately was that the line was shifted further south and that the drifters worked by daylight only, sheltering every night in Castro, Tricase, Fano, and Merlera. Thus, enemy submarines could pass up and down the Straits by night without let or hindrance. Afterwards, occasionally as a temporary measure when there was a submarine alarm, the drifters did net across the Straits by night, but under the protection of a light cruiser and three destroyers. The M.L.'s continued, however, to operate from Gallipoli and Tricase.

By the end of July, 1917, then, the policy was firmly established of keeping the drifters at Taranto, Gallipoli, and St. George's Bay, there to remain in harbour except when submarines were expected. The drifters would then net the Straits, and under warship protection by night. With the abolition of the drifter-line, more reliance began to be placed on listening, and the M.L.'s used to be in the Straits at night, about two and a half miles apart, with hydrophones out. Thus, an entirely new scheme came into the Otranto Straits, and the drifters themselves began to be instructed in hydrophone work. The next development was to create a *fixed* net barrage, for there was no question but the enemy submarines were still going backwards and forwards to Cattaro, and doing enormous harm in the Mediterranean by means of mines and torpedoes.

This fixed net barrage was a Franco-Italian project, and in principle, at least, was not very different from the old Dover net barrage from the Goodwins to Snou, though there were no Dover tides. It was supported by moored buoys, and the curtain was about 150 feet deep. During the early autumn our drifters were employed in laying it, and mines were attached to the nets. At the beginning of October six Australian destroyers arrived from Malta to protect the barrage scheme and take turn with the French destroyers. The anti-submarine measures at the mouth of the Adriatic thus comprised now; (1) a mobile barrage of drifters, trawlers, and M.L.'s; (2) a fixed barrage of nets and shore hydrophones; (3) destroyers (and when required light cruisers from Brindisi) to protect the barrage; (4) aircraft for observing.

All this meant a considerable force. In addition to the destroyers and light cruisers, there were about ninety drifters netting or hydrophoning, about thirty M.L.'s patrolling or hydrophoning in connection with the barrage; but there was a great need for trawlers also. Before the middle of November two dozen more trawlers and drifters from the Ægean and a dozen M.L.'s came to strengthen this crucial Otranto defile. It was the most important feature of the whole Mediterranean area. The laying of the Franco-Italian fixed barrage of nets was a slow business. The conception was tremendous, for the barrage was to stretch all the way from seven miles off the shore to Fano Island, the nets being British, but of Franco-Italian design. Thus, large consignments of stores for barrage construction and for hydrophone use began to arrive at the Adriatic; drifters and M.L.'s were being sent to Malta for a while to receive hydrophone instruction; in short, the primitive idea of relying on drifter-nets to thwart submarines had now definitely gone. The successful use of the Dover flares led to their being employed also in the Straits of Otranto and at home in the North Channel.

The Franco-Italian fixed barrage of mined nets started from the eastern end of a deep minefield which the Allies laid a few miles east of Otranto. This barrage extended towards Fano Island, as already mentioned, the top of the net being not flush with the surface of the sea, but submerged to about 30 feet; thus, there was a total effective depth of about 180 feet, but the average depth of the Straits hereabouts was 450 fathoms, or 2,700 feet, the only satisfaction being that she would be a daring submarine who cared to risk injury by diving below 180 feet. It was not till April, 1918, that the fixed barrage in its finally approved form began to be laid, for there had been inevitable delays caused by awaiting the necessary material from England. During the ensuing months the laying of this long barrage went on, and it was completed not till the end of September, or only six weeks before Armistice. But by June the submarines were already beginning to feel the awkwardness of the barrage. In fact, so serious had this become to the enemy that Germany made strong representations to Austria, and the result was that, on June 10, Austria was sending south two of her battleships (which since the war had scarcely put to sea) and several destroyers to support a strong attack that was to be made on the Otranto barrage. But then two Italian motor launches which were cruising in the North Adriatic sighted the Austrians, and very gallantly attacked the battleships with torpedoes, and actually sank the Austrian Dreadnought *Szent Istvan.* These Italians thus decidedly helped their British brethren to the southward.

Proof of the efficacy of the fixed and mobile barrage was afforded that summer, as the following incident will show. On the evening of August 1, 1918, UB 53 set out from Pola, her captain being Lieutenant-Commander Sprenger. Bound for the Mediterranean, where she had been operating ever since the previous autumn, this craft was not unfamiliar with the barrage. Among her crew the navigating warrant officer, the engine-room warrant officer, and one petty officer, had been in the German Mercantile Marine before the war. The boatswain's mate was one of that plucky and resourceful crew who were left by the *Emden* on Cocos Island and then got away in the schooner *Ayesha,* and eventually after exciting adventures reached the Red Sea and then Europe.

Sprenger about half-past two on the morning of August 3 decided to submerge, and in that condition proceeded at an average of about three knots, at a depth of from 100 to 131 feet. By five in the afternoon he had thus run about forty-five miles and was well over towards the Fano side of the Adriatic when two violent explosions occurred on the starboard side aft; for he had run into the last section of the fixed mine-net. The new barrage had succeeded. For now there followed trouble profound and terrible. The water began to flood the submarine from the after compartment, some of the electric lights became extinguished, the boat lost trim, but by blowing all tanks UB 53 managed to get to the surface and proceed under her Diesel engines. All the same, an investigation showed that she was too seriously damaged to dive again, and seeing to the eastward a destroyer and two trawlers, she realized that escape on the surface was equally impossible. Sprenger therefore sank his craft, and the crew took to the water. About three or four hours later the ex-Mercantile Marine engineer sighted in the darkness the British destroyer *Martin* stopped near to him, and called out in English that thirty-five men from a German submarine were swimming about. *Martin* therefore switched on her searchlight and thus was able to pick twenty-seven up. Thus, the combination of fixed and mobile barrage had done what was aimed at. The enemy had been compelled to submerge and had fouled the obstruction.

But events were happening quickly in Northern Europe; the war was approaching its end, and in the Mediterranean area the inevitable was forestalled. Thus, on October 28 all the German U-boats that were ready for sea left Pola and Cattaro for Germany, Scheer tells us. Two days later the Armistice was signed at Mudros between Turkey and the Entente Powers, and then next day the Austro-Hungarian Fleet was made over by the Austrian Emperor to the Jugo-Slav National Council. On the evacuation of the Adriatic by the Germans there were destroyed at Pola or Cattaro U's 47, 65, 72, and 73; UB's 48, 129; UC's 25, 34, 53, and 54.

Thus, in the Adriatic we have a repetition of the condition in the Dover Straits. Just at the time when long years of experience and experiment had produced the right methods of thwarting the enemy, the war ended. It should be added, however, that of the two, Dover barrage with its deep mines was far more efficacious, as is proved by the fact that submarines were able to leave Austria in October for Germany.

CHAPTER XIV

PATROLS AND CONVOYS

I HAVE laid stress on the importance of the Dover and Otranto Straits for the reason that these were the gateways by which the submarines passed to carry out their unrestricted warfare against our shipping. The north-about Scotland route still remained, and in due course we shall see how this was to be closed to the enemy.

In the meanwhile, the Auxiliary Patrol was kept busier than ever all round the British Isles, owing to the enormous submarine activity. Off the Belgian coast the coastal motor-boats were harassing the Germans, rushing out from Dunkirk and even entering Zeebrugge, where one night in April, 1917, they torpedoed a German destroyer inside the Mole. On Easter Monday Admiral Sims arrived from New York to make arrangements for the American naval assistance, now that the United States had come into the war. He crossed in the Atlantic liner *New York*, though she managed to hit a mine off the Mersey Bar Lightship. Travelling as civilians, Rear-Admiral Sims and his *aide*, Commander Babcock, appeared in the passenger lists as Mr. S. W. Davidson and Mr. J. V. Richardson respectively. On Friday, May 4, being then in command of M.L. 181, I proceeded out of Queenstown harbour, having on board among other officers Commander Babcock,

TRAWLERS ROUND THEIR MOTHER SHIP IN PORTLAND HARBOUR

M.L. 181 GOING OUT TO MEET THE FIRST AMERICAN DESTROYERS. On the left Captain E. R. G. R. Evans, R.N. On the right Commander Babcock, U.S.N.

U.S.N., Commander E. R. G. R. Evans, R.N. (fresh from his brilliant engagement in the *Broke*, during the raid on Dover Straits a fortnight before); and when a little north of Daunt's Rock Lightship there suddenly appeared after an hour and a half's wait the destroyers *McDougal*, *Davis*, *Wadsworth*, *Conyngham*, *Porter*, and *Wainwright*, being the first six ships which America sent over now that she was in the war. It was certainly an 'historic occasion,' as the Admiralty afterwards termed it—or the 'return of the *Mayflower*,' as Admiral Sims has designated it. It was one of those balmy, sunny May mornings with a calm sea and a certain amount of Atlantic swell. Making a signal for our new Allies to stop, I had barely got alongside the first destroyer than a couple of explosions occurred a few cables to the southward, and up went mines in the sweep of some trawlers. The enemy had plastered Queenstown approaches with his black eggs, as if to demonstrate to the Americans that they were now actually in the war zone. Later on, the U.S. Navy was to assist not merely with other warships, but with armed steam yachts, mine-layers, and with the manufacture of mines that were to be so valuable in that northern barrage which was to seal the North Sea, just as the Dover mines sealed the Straits.

Our mine-sweepers were perpetually in danger and frequently were lost. On April 20, 1917, for instance, the paddler *Nepaulin* was mined and sunk near the Dyck Lightship (off Dunkirk), with the loss of three officers and fifteen men out of a total complement of forty-five. The only officer saved was Lieutenant Carruthers, R.N.V.R., who was on the bridge at the time. But there were other demands on our auxiliary craft which must now be mentioned. The fastest of the trawlers were required for what were originally merely 'protected sailings,' but developed into escorted convoys. This was destined to become a most important feature of the latter part of the war. I believe that the idea began with what was known as the French Coal Trade, started in February, 1917. France needed coal, and this had to be sent from Cardiff. Owing to the shortage of shipping, the coal was despatched in all sorts of craft, many of them quite obsolete. They assembled in Weymouth Bay, and I have never seen a more curious collection of ships or of such great age. This French coal trade was escorted from Portland to Cherbourg, and from Cherbourg back to Anvil Point, by Portland trawlers. The result, so far as the coal ships went, was excellent, but it meant that these trawlers could not be employed on their patrol or mine-sweeping work. And the demands for the escorting increased.

But the success of this French coal trade was such that the idea developed. The Admiralty had been opposed to the convoy idea, yet all through naval history, even as far back as the crusades right down to the days of the East Indiamen, sailing ship convoys had been resorted to in times of war. Perhaps it would be truer to say that, influenced by the modern steam-driven Mercantile Marine's known objection to proceeding in company, and having to keep station at night and in thick weather, the Admiralty did not favour the convoy idea.

However, ships were being sunk right and left, but the cross-Channel coal ships seemed to have eluded the submarines. It was in December, 1916, that a system of 'protected sailings' was instituted for the Scandinavian ships, which gradually developed by the following April into a regular convoy arrangement. We were in such a position that we could not afford to dispense with this northern trade, and the Scandinavian ships would not have been allowed by their owners to come across the North Sea except they were protected; for they had suffered heavy losses by submarines. The net result was that our trawlers had to escort this shipping along the coast and thence across the North Sea, thereby causing fewer vessels to be available for patrolling the Fair Island Channel, through which submarines bound from Germany north-about were wont to proceed. Similarly it tended to disorganize the mine-sweeping in the Shetlands area.

But instead of lessening, the convoy idea grew. Besides the Scandinavian convoy, bigger merchant ships doing ocean voyages across the Atlantic and to the Mediterranean began to proceed in convoys escorted by cruisers, and when they approached land were taken over by British and American destroyers till their destination was reached. The enemy sent U 49 and other submarines across the North Sea to watch these Scandinavian convoys and bring back the information that was required; for there was no doubt that these collective sailings had begun to lessen our losses at the time when the sinking of every ship was a serious blow to the Allied cause. Lerwick became the central exchange or clearing-house for the Scandinavian convoys. Here the south-going shipping assembled bound for the Humber; here the shipping from the Humber collected before proceeding across the sea. All this meant the appropriation of a score of destroyers and forty-five trawlers. No wonder the officers commanding the Auxiliary Patrol bases along the east coast felt the loss of their units.

It was impossible to relax vigilance anywhere. On the night of April 12-13 an enemy submarine did her best to get into Scapa Flow, for she was certainly in Hoxa Sound, heard by hydrophones and hunted by M.L.'s with depth charges. But this is only one instance; they were sinking more tons of shipping than ever. Rescue tugs were being based on the English, Irish, and Mediterranean coasts for rendering prompt assistance to damaged ships; the fishing fleets were now being armed with 6-pounders and fitted with wireless as a nominal part of the Auxiliary Patrol, and thus became self-protecting. North Sea fishing from May, 1917, came under Admiralty control. Thus, the patrol trawlers were relieved of some responsibility. But the work of the Anti-Submarine Division was showing itself in many successful ways. Besides the coastal and Scandinavian convoys, merchantmen were being armed, impressed with the importance of zigzagging, and provided with smoke apparatus.

As a reply to our coastal motor-boats the Germans built a number of patrol motor-boats, the first of which reached Zeebrugge by May, 1917. These were of three classes, the smallest being 20 feet long and the largest 42 feet, as compared with our 40 feet and 55 feet C.M.B.'s, but they never did much good. At the western end of the English Channel the armed trawler *Sea King*, which was one of a trawler hydrophone flotilla, saw UC 66 on June 12 off the Lizard, headed for her, made her dive, and then depth-charged her so that the enemy's mines went off too. The submarine ended her career just there. But within a week the armed trawler *Bega* had been torpedoed and sunk forty miles north of Muckle Flugga, at the other end of the British Isles. And, in the week following, the two paddle-sweepers *Redcar* and *Kempton* had foundered on mines off Dover. Thus, the play and counterplay went on regardless of money or human life.

The M.L.'s having been built as submarine-chasers, and used for this purpose, for mine-sweeping, for escort and other jobs as well, were now employed in the Nore area as mine-layers. It was desired to lay a field off the Kentish Knock, and no fewer than a score of trips were made by these little craft, so that they were able to place a formidable minefield of many hundreds of mines forty-five miles away from their base, thus materially strengthening the defence of the Nore. Mine-laying is a duty not to be undertaken lightly or without experience; yet these R.N.V.R. officers did it most ably.

It was inevitable that the success of the Scandinavian convoy system should, by robbing the enemy of an opportunity for attacking single ships, attract him like a magnet. The selection of Lerwick in the Shetland Isles had, of course, been made as affording the shortest sea-passage to the Scandinavian coast and thus minimising risk of submarines. In the first week of July, 1917, whilst the Scandinavian convoy was on her way across from Lerwick, it was attacked by a submarine, but the armed yacht *Amalthea* and the armed whaler *Pilot Whale* fired at her, and the destroyer *Arab* dropped depth charges on her. The enemy thus let the convoy alone. Pass over the summer and come to October 17, and we have a further proof of the convoy success. Unable to stop this system, which was robbing Germany of so many opportunities, the enemy decided to use another method—the one which had succeeded in the Dover Straits.

From her spies in Scandinavia it was not impossible to obtain fairly accurate information as to the strength and numbers and the approximate dates and hours of sailing or arriving. The rest was just a matter of arithmetic, of intelligent anticipation, and ordinary staff work. So it was that the incident below happened. The west-bound convoy was on her way to Lerwick consisting of a dozen British, Belgian, Norwegian, Swedish, and Danish ships. The escort consisted of the two British destroyers *Mary Rose* and *Strongbow*, the armed trawler *Elsie*, and the armed whaler *P. Fannon*, the two latter being armed each with one 6-pounder. Just after six on the morning of October 17 *Strongbow* sighted two German cruisers as it was getting daylight. The visibility was not good, but it was a typical cold, grey, North Sea morning with a heavy southerly swell. These two enemy ships at first resembled with their three funnels our County class cruisers, but their failure to make the right reply to our destroyers' challenge soon showed who they were, and in ten minutes the second German ship opened fire and hit *Strongbow* in the engine-room, the foremost ship also doing heavy damage. *Strongbow* was put out of action, stopped, and was frequently hit, with many casualties.

Quickly *Mary Rose* was sunk and the convoy shelled, and then *Strongbow* was shelled again. Gallantly the trawler *Elsie* came up and she was driven off by the enemy, but stood by the *Strongbow* and saved most of the survivors after searching for *Mary Rose*. With very heavy losses the *Strongbow* went down badly on fire, and about half-past eight the enemy made off home, having sunk nine of the twelve ships of the convoy plus both destroyers. The two trawlers undamaged then escorted the other three into Lerwick. Not a soul survived from *Mary*

Rose. She was a pretty ship, and the last time I had seen her was the previous May off Queenstown. She was always a subject of interesting conversation in comparing her with the newly arrived and quite differently designed American destroyers.

Writing of this raid, Admiral Scheer says that the cruisers were the *Brummer* and *Bremse*, which had been originally built in German yards as Russian mine-layers. They each had a 15-cm. gun, and possessed high speed. He says that the object was to assist the U-boat campaign, inasmuch as this raid would cause the British to provide better protection for the convoy, and this protection 'would have to be taken from among those occupied in the war on U-boats.' On October 24 the west-bound Scandinavian convoy was attacked by a submarine, one of the merchantmen being torpedoed east of the Shetlands, though she was brought into Lerwick and beached. Another ship in the convoy was torpedoed and sunk.

But it was on the night of December 11-12 of the same year that another surface raid occurred, and it took place in two parts. On this Scheer again gives us valuable additional information, for he says that the raiding force consisted of the Second Torpedo-boat Flotilla (which, the reader will recollect, raided Dover Straits on February 14-15, 1918). This comprised the biggest and fastest of their torpedo-boat craft, and consisted of the Fourth Half-Flotilla and the Third Half-Flotilla. Accompanied by the new light cruiser *Emden*, these two half-flotillas left Germany on the morning of December 11, and by two in the afternoon were at the north-east end of the Dogger Bank. Here *Emden* remained whilst the two half-flotillas separated, the Third proceeding north, and the

Fourth steering for a position twenty-five miles north of Newcastle. We will consider these separately.

The Third consisted of four destroyers (or, as the Germans always called them, torpedo-boats), and after running north encountered bad weather, had to ease down to 12 knots, and in the early hours of the 12th made for Udsire so as to get a fix, and then endeavour to catch a convoy known to be coming from Drammen (Christiania). But after sighting Udsire, as the weather was getting no worse, they again went north, but had to reduce speed four hours later to 9 knots because of the sea. They therefore turned south, and half an hour later that morning sighted the Scandinavian east-bound convoy, the weather being clear with a big swell. The convoy consisted of six British, Danish, Swedish, and Norwegian ships. On the starboard side of the convoy was the armed trawler *Commander Fullerton*, on the port side were the armed trawlers *Livingstone*, *Tokio*, and *Lord Alverstone*, whilst ahead on each bow of the convoy were the destroyers *Pellew* and *Partridge*. The German destroyers were seen by the convoy seven miles away and the foremost destroyer opened fire at this range and hit *Livingstone* in the engine-room. Fire was returned by the two destroyers, but the trawlers' 6-pounders were hopelessly outranged.

Scheer says that *Partridge* steered towards the German destroyers, and then steamed ahead at full speed, followed by *Pellew*, leaving 'the convoy and the four trawlers to their fate, probably with the idea of drawing our boats away from the latter, and of fighting them.' What happened was that the *Lord Alverstone*, who was the leading trawler, now rounded the convoy ahead, and with *Tokio* steamed to the southward, followed by the *Commander Fullerton*, and then the *Lord Alverstone* went west and the *Commander Fullerton* south-east. And whilst our two destroyers were to the north-east taking on three enemy destroyers, the fourth German proceeded to sink the *Lord Alverstone*, the *Commander Fullerton*, and the *Tokio*, as well as the whole convoy. In the meantime *Partridge* had been disabled by a shell in her main steam-pipe, but used her torpedoes, one of which actually struck one of the enemy ships but unfortunately did not explode. *Partridge* sank. From her and trawlers the enemy took prisoners four officers and forty-eight men, as well as twenty-three civilians from the convoy. This Third Half-Flotilla then returned direct to Germany, having entirely wiped out the whole convoy and escort with the exception of *Pellew*, who escaped in a squall of rain. But that same day some more survivors of the *Commander Fullerton* and *Livingstone* were picked up by our ships. So much, then, for one attack, which had brought us another disastrous day. Now for the Fourth Half-Flotilla.

This consisted of probably five destroyers, which, after leaving *Emden*, made for the north-east coast, but intercepted a wireless message that a convoy with destroyers would leave the Firth of Forth for the south that evening. The German destroyers therefore decided to steam up our swept channel to as far north as Berwick to meet this convoy. But shortly after midnight they sighted and torpedoed the British S.S. *Cordova* about twenty-five miles from the coast. But later, 'as the flotilla approached closer to the coast, the beacons they expected to see were not visible, so that they could not find their way between the Farne Island and the land.' They then turned south towards the mouth of the Tyne and torpedoed a Danish merchant ship which was proceeding south. They also attacked a Swedish ship, both of these belonging to a south-bound Lerwick-Humber convoy. One fishing trawler off the Tyne was sunk also. The destroyers then rejoined *Emden* and returned to Germany.

Now, the effect of these powerful surface attacks on the Scandinavian convoys, together with the delays by bad weather and the excessive strain on both ships and men, was such that drastic changes had to be made. If you consider the frightful weather and short daylight in those northern latitudes, the responsibility of the work, and the perpetual suspense of being attacked not merely by submarines but by light cruisers or powerful destroyers, I think you will agree that no winter's job could have been worse throughout the whole Navy. Under the new arrangement the assembly port was now changed to Methil (Fifeshire). Hither came the coastal convoys from the Humber and Tyne, and every third day the convoys, escorted by one armed boarding steamer, two destroyers, and nine armed trawlers, would steam direct for Norway. The coastal convoys were escorted to the assembly port by the Auxiliary Patrol.

But, you will ask, was this escort strong enough in view of recent raids? The answer is that it was strong enough against any submarine attack; for now, from the time Methil was used, regular supporting squadrons of battleships and light cruisers were at sea who met the outward and inward convoys. Nothing less than the High Seas Fleet could therefore avail against these convoys, and that fleet in turn would bring out the Grand Fleet in full strength. Thus, at last the raids were put an end to; thus, also, the brave little trawlers could be sure of some peace. Of course, there were still attacks by submarine, as on March 28, 1918, when the armed boarding steamer, acting as convoy leader, was torpedoed. Next morning one of the steamers in the convoy was also torpedoed.

The reader will find it necessary to remember, in order to appreciate fully the value of these Scandinavian convoys, that at this time we were short not merely of food, but of many articles coming under the head of munitions of war. The Scandinavian countries were dependent on us for coal, but we were short of shipping. On the other hand, that territory could provide us with such things as iron ore, sulphur, nitrates, paper pulp for munitions; timber for huts; pit props for mines; herrings for food; and shipping in which to take out coal and bring the above requisites back. The exchange was therefore well worth it to us.

Now pass on a few weeks to the spring. What was the condition of affairs? These convoys were well protected, the U-boats were gradually having their life squeezed out of them, and the shipping losses now were very different from what they had been. Hydrophones, deep-laid mines, ever-vigilant destroyers, P-boats, trawlers, drifters, yachts, M.L.'s, disguised Q-ships, depth charges, howitzers, many more guns, and better defensive methods for the Mercantile Marine ships: all these items were beginning to tell heavily on the enemy's U-boats. He realized it; he knew to his cost that month after month his craft went forth and never came back, so that the Flanders submarines were known among their own officers as the 'Drowning Flotilla.' Yes, something had to be done, but what?

Anyone who studied this series of Scandinavian raids at the time could see that if they were continued nothing could prevent them culminating in a fleet action. For the progress was, as the reader has seen, ever stronger escorts to guard against enemy destroyers. The enemy then sends more powerful destroyers and light cruisers. To this we reply with squadrons of battleships and light cruisers. The next reply would have been. . . . Well, it very nearly came to the real thing, another Jutland; for this is what happened. Scheer says that Germany now realized that the British had materially reinforced their strength in the English Channel and in protecting the Scandinavian convoys. Realizing, too, that the convoys could now be attacked only by battle-cruisers supported by battle-squadrons, it was argued that if such an attack could be made and much tonnage sunk, it 'would bring welcome relief to the U-boats operating in the Channel and round England, for it would force the English to send more warships to the northern waters.'

The Germans therefore resolved to bring out the High Seas Fleet in strength, the plan being to attack the convoy with battle-cruisers, light cruisers, and destroyers, under Admiral von Hipper; while three battle-squadrons, a scouting division of light cruisers, and four flotillas of destroyers, all under Admiral Scheer, were to take up a position in the North Sea as support. Off the Scottish coast the U-boats were to wireless the movements of all our warships and convoys, and to attack the former off the Firth of Forth. The Germans believed that our convoys usually crossed at the beginning and middle of the week, and therefore Wednesday, April 24, was chosen for the High Seas Fleet's attempt.

But the expedition became an utter fiasco. Picture in the early hours of the twenty-fourth Hipper's battle-cruisers forty miles W.S.W. of Stavanger. Suddenly one of them, the *Moltke*, has a serious accident. Of her four propellers, the inner starboard one drops off, the turbine begins to race and causes no end of damage. Next the engine-rooms become flooded owing to the auxiliary condenser being damaged, and the engines cease to work. Thus the *Moltke* has to be taken in tow by the *Oldenburg* battleship, and with these two ships Scheer turns his main fleet round and returns sorrowfully to the German Bight. Off List *Moltke* is cast off and allowed to steam ahead at 15 knots, but an hour later she is torpedoed by a British submarine north of Heligoland, though owing to the excellent subdivisional compartments in the German ships she manages to get into the Jade.

As to Hipper's force, he proceeded to search for the convoy as far north as the latitude of the southern end of the Shetlands, sighted nothing, and came south again to rejoin Scheer, and so back home. Thus, no good result had happened, the convoys were never again interfered with by surface ships, and never again did the High Seas Fleet put to sea until that historic day after Armistice when it came across to the Firth of Forth to surrender formally to the Grand Fleet. The submarines still continued their efforts against these convoys, but some of them found this quite a thrilling life, with many narrow escapes; and others, as for instance UC 75 and UB 110, paid for their attention with their lives. The enemy was fast coming to the end of his initiative and enduring ability. The personnel of his submarines were now very different from the Hersing type, and were doing extremely foolish things, which no skilled submarine officer would have attempted. We, too, were passing through anxious days on land and sea; but our keenness was not yet dead, the submarine menace was clearly being broken, and we had learnt the secret of success. It was a question now only of staying power and of having enough shipping for supplies. The rest of the trouble afloat was well in hand at last.

CHAPTER XV

PATROL ADVENTURES

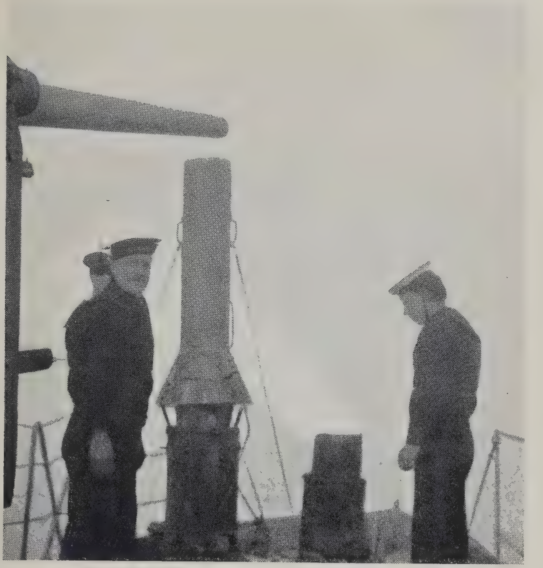
THE reader will remember that the Belgian coast barrage, which had been laid in 1916, was allowed to remain unpatrolled during the subsequent winter. But by July, 1917, it was decided to reinstitute it. The increased activity on the part of enemy destroyers and mine-laying submarines demanded that something should be done. The operation now was to lay deep mines and mine-nets off the Belgian coast with the old zareba idea, as before. It was an ambitious scheme and it did not blockade the enemy, but, as previously, it caused him a certain amount of inconvenience; though whether it was worth all the expense, trouble, time, and the employment of so many of our ships and men is another question.

The fresh operations commenced on July 25, 1917, the aim being to lay the nets without previous warning and as quickly as possible, but in sections. As a feat of organization it was a very fine achievement, and it was well carried out. One hundred and two ships were secretly assembled, and the actual operation of net-laying was carried out in an hour and a half. The position of the mark buoys for laying the sections of nets was ascertained by the use of the taut-wire system. (This was an idea much used during the war, especially by our mine-laying vessels, who used to go over by night and drop mines in the Heligoland Bight.

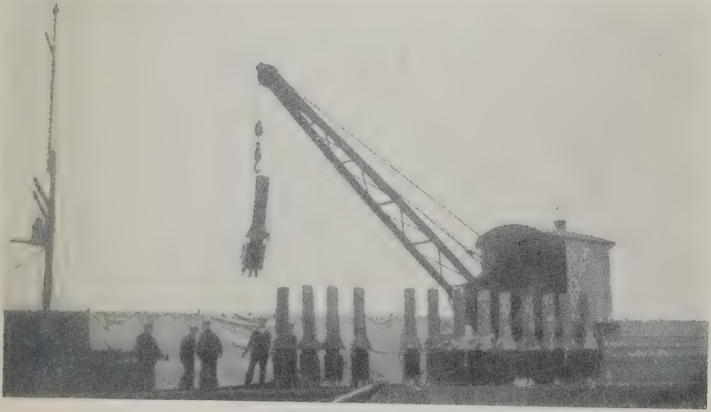
From any given 'departure' you drop overboard a sinker, firebar, small anchor—anything that will hold. Attached to this sinker is a light piano-wire which unrolls itself from a drum as the ship steams ahead. It is thus a kind of log, but very accurate; and if you require to steam exactly a hundred miles by night without navigational aids, you should be there when the hundred miles of wire have been reeled off. It was a device which cable-ships had used considerably before the Navy adopted it in the war.)

Naturally the enemy destroyers attacked our drifters and their destroyer support during this net-laying, and eventually our monitor *Terror* had to engage them with her 15-inch shells, to which in turn the Knocke battery replied with shells which straddled *Terror*. Aircraft also endeavoured to interfere with what was going on. Every possible use was made of darkness, and thus on July 24, the eve of the operation, we find assembled at Dunkirk monitors, paddle mine-sweepers, destroyers, M.L.'s, drifters, and P-boats. At 9.40 p.m. the drifters left escorted by destroyers and laid a temporary line of nets seaward to catch home-returning submarines. At 10.45 p.m. left paddle mine-sweepers and drifters under the escort of destroyers. The paddlers went ahead clearing the channel, astern of them came one of the P-boats who, by means of her taut wire, ran the required distance for the buoys. An hour after midnight three monitors, a P-boat, and eight M.L.'s were well under way, and two hours later the light cruiser *Attentive* left Dunkirk to take charge of the destroyers.

The mine-layer *Paris* had left the Downs so as to arrive at the western end of the line at 4.30 a.m. of the 25th, and then proceeded to lay her line of mines. The drifters also laid their line of mine-nets, and the



Smoke-Screen Apparatus
On board an M.L.



Smoke-Screen Apparatus

To face p. 230

monitors bombarded Ostend, while the M.L.'s provided the smoke screen. On July 28 the remainder of the nets were laid, and now to the extent of twenty miles there was a line of mine-nets flanked off the Thornton Ridge by deep mines. The barrage was patrolled day and night by means of C.M.B.'s, weather permitting, or by destroyers, plus monitors and a light cruiser, as well as seaplanes and M.L.'s. But almost immediately the enemy began to interfere with this new barrage, and a grapnel was actually found in the net. Enemy seaplanes were also responsible for sinking part of it and for cutting the wires. Commander E. E. Schulze says that only in the last year of the war was this barrage patrolled by night, and this did not prevent the Germans from carrying out sweeping operations; all the same, he admits that the increased vigilance of our patrols was very trying. Over six thousand British officers and men were employed in connection with this barrage, which had been inaugurated partly by the intention of bringing about the great landing of the military, which was destined never to take place. But the enemy could always use the Dutch neutral waters at the eastern end, which we could never mine, and under cover of darkness German craft would not be likely to be challenged by the Dutch.

Still, perhaps any attempt to stop submarines was justified, for at this time the Allies were losing about 500,000 tons of shipping a month, and the building capacity of the available yards for the next year was not more than about a quarter of this amount. That simply meant that when the available shipping was reduced below the amount of tonnage required to land a certain amount of freight in England and France the war would be lost. The situation was indeed critical; yet if you had been able to take a bird's-eye view one day in the middle of July you would have found around the British Isles on patrol or mine-sweeping no fewer than 1,367 yachts, trawlers, whalers, paddlers, drifters, smacks, and M.L.'s hard at work, in addition to those resting in harbour.

Now, a few hours after the first of these nets had been laid on July 25, UC 61 was able to leave Zeebrugge and navigate as she liked through the Goodwins-Snou barrage during the night hours, and then shaped a course along the coast between Gravelines and Blanc-nez, intending to lay mines off Boulogne and Havre and then operate in the Atlantic. The weather came on thick, and she managed to get ashore on the Wissant Shoal by Griz-nez. I heard the whole story quite recently on that coast from Frenchmen themselves. The Germans were taken prisoners from their stranded submarine, nor was this by any means the last of her kind to get through the Belgian coast and the Dover barrages. The Flanders type confined themselves for a long period to the southern area between Flamborough Head and the Bay of Biscay; but now the bigger submarines were operating out in the Atlantic, off the south coast of Ireland, off the Azores, in the Bay of Biscay (doubtless also to intercept American transports with troops bound for Brest), off the approaches to the English Channel, and so on.

But things were beginning to look ugly for the enemy. There had been grave trouble brewing, and in May, 1917, came the first outbreaks in the German Navy caused by insufficiency of food and other reasons. At the beginning of August the German Fleet mutinied, but the places of the mutineers were taken by young peasant recruits unlikely to revolt. The power of our blockade was now being felt severely, though the best food rations were always reserved for the submarine crews. It was one of the Heligoland craft, UC 44, which settled her own fate on the third anniversary of the outbreak of war. Off the south coast of Ireland we had been kept very busy all that year with submarines' 'eggs.' Ships had been blown up, we had sunk quite a lot of mines, but there were some very narrow escapes, for you would often come across a small dark thing showing its ugly horns suddenly just ahead of you, rising with the scend of the sea and then momentarily disappearing below water. Except in a flat calm they were awkward things to sink, and the most ludicrous position I know of is to be alone with a mine, some distance off the nearest headland, night coming on, sea getting up, and your ammunition running short; yet to leave the mine meant disaster probably to some great Atlantic liner.

What happened to UC 44 was that she had arrived with eighteen mines off the south-east coast of Ireland. She had just obtained a fix from the Waterford lights, and the time was about 10 p.m. She had already dropped through her tubes some of her dangerous cargo, when there suddenly occurred a terrific explosion, for, unknown to her, mines had been laid off there already. Luckily for him her commanding officer, named Tebbenjohanns, was shot out of the conning tower and was picked up about midnight by one of our patrol vessels. Afterwards divers were sent down, who found the conning tower hatch open and half her mines still in the tubes. It was on that same day that the armed yacht *Beryl*, whilst patrolling off the same coast but further to the westward, sighted a submarine six hundred yards away, went full speed for it in order to ram, but the enemy submerged. *Beryl* passed right over her, dropped a depth charge which exploded, and probably at least gave the crew of the submarine a thoroughly nasty shake-up. For I remember when one of our own submarines that year was taken for an enemy and a depth charge was dropped over her; although in this case the hull fortunately was undamaged, yet the explosion lifted an officer and men off their feet and caused the ship to vibrate in an alarming manner. Another depth charge put out all the lights, damaged the batteries, jammed the helm and hydroplanes, and made a permanent error in the compass.

During the summer of 1917 preparations were still going on for the great landing on the Belgian coast, but, after being continually postponed, the operation was finally given up. There are critics who believe that instead of the unlucky gamble at the Dardanelles a portion of this effort might have been better employed early on in the war against the Belgian coast. Had that been the case, and the ports of Zeebrugge and Ostend been won back, it would have made an enormous difference to the submarine problem and therefore to our Auxiliary Patrol. For the submarines' bases would have been transferred three hundred miles back to the Heligoland Bight, away from the Dover Straits with its barrage problem. The radius of the submarines would thus have been lessened, and the distance to the Atlantic, Bay of Biscay, and Channel ports would have been increased; in other words, the submarines would have been able to spend only a short time on their station sinking our shipping. Schulze claims for his Flanders submarines that they attained their maximum strength in July, 1917, when 38 boats were in service, and that throughout the war they sank 2,554 vessels of 4·4 million tons, thus accounting for 33 per cent. of the total tonnage destroyed. Therefore it is to be regretted that no steps were taken in the early stages of the war, after the withdrawal from Antwerp, to block Zeebrugge and Ostend, even if there were not soldiers available for reoccupying the country.

In the summer of 1911 I cruised all up this coast and examined these harbours carefully. Those who may have read 'Through Holland in the *Vivette*' will remember I remarked that 'in time of war Zeebrugge would become even more valuable still. Its breakwater could easily screen a large torpedo flotilla, which could dash out. . . . The smallest torpedo craft could lie comfortably protected from the heaviest south-west gale inside this breakwater.' This is, of course, exactly what did happen, and then came the submarines. I had another look at the place in 1912, but hurried home because the Agadir business seemed likely to make war imminent. I talked in the meantime to many naval officers, but when you mentioned Zeebrugge they knew nothing about the place nor of its enormous horse-shoe mole a mile and a quarter long. I tried to call attention to the forthcoming importance of this harbour, and I am glad to know that the information presently reached the proper quarter. Everyone knows now the importance of this great harbour, covering a space of 300 acres, but twelve years ago it was hardly suspected. Last year I once more visited it, and went alongside the Mole in a yacht and examined it all again. Presently the reader will see for himself that before the end of the war we made an historic effort to block the Zeebrugge Canal. The pity of it is that this was not done in the autumn of 1914, long before the Germans established those heavy batteries along the coast. It is, however, a credit to our patrol forces and general anti-submarine organization that, as Commander Schulze admits, 80 submarines, 145 officers, and more than a thousand men of the Flanders submarine flotilla were lost. Under Admiral von Schröder, the Zeebrugge Base was a continuous source of anxiety to Admiral Hood, Admiral Bacon, and Admiral Keyes, who succeeded each other at Dover. By May, 1918, Zeebrugge had 19 destroyers, 16 torpedo-boats, 7 motor-boats; 28 motor-boats and launches for mine-sweeping; as well as 12 UC minelayers and 22 UB submarines. The Dover Patrol thus had a very unpleasant neighbour.

We now come to one of the most glorious pages in the whole history of the Auxiliary Patrol and yet one of the saddest, for in this action one of these Flanders submarines was to bring about the death of as gallant an English sailorman as ever handled a trawl or steered a craft. On another page reference has been made to the armed smacks which had to be sent out off the East Anglian coast against the Flanders submarines. One of these was the *Nelson*, (alias *G. & E.*, *I'll try*, etc.), under the command of Skipper T. Crisp, D.S.C. They went out and actually fished, but all the time they were a bait for the enemy. Now, on the 15th of August, 1917, about quarter to three in the afternoon, the *Nelson* was off that coast, the trawl had been shot, she herself was on the port tack, and Skipper Crisp was below packing fish, and one hand was on deck cleaning fish for next morning's breakfast. Presently Crisp came on deck, and saw an object on the horizon, scrutinized it, and sent for his binoculars.

Instantly he understood. 'Clear for action!' he ordered, for that was a submarine right enough. Scarcely were the words out of his mouth when a shot fell a hundred yards away on the port bow, so the net astern was buoyed and slipped, the 13-pounder was manned, and the motorman went below to start up the engine. Meanwhile the Flanders craft was pumping shells across the water, and the fourth penetrated the *Nelson* on the bow just below the water-line, so Skipper Crisp put her about on the other tack. The crew were cool, calm, and collected, and there was no suggestion of confusion in the smack. But now the seventh shell came with death on it, for it struck the skipper, went through his side, through the ship's deck, and out through the ship's side into the sea, leaving behind a trail of destruction. So now the second hand, T. W. Crisp, the skipper's son, took charge of the tiller, and the firing went on unabated.

Mind you, all this time the sea was pouring into the smack, which was now sinking. To the aid of the poor skipper went the gun-layer, but he could see that his captain was mortally wounded. 'It's all right; do your best,' cheered the old man. Then to his son he ordered: 'Send a message off,' and having encouraged his men, he dictated the following: '*Nelson* being attacked by submarine. Skipper killed. Send assistance at once.' This was attached to a carrier pigeon, and away it flew towards Lowestoft. Meanwhile the enemy's 4·1-inch gun had completely outranged the *Nelson's* 13-pounder, and only five rounds of ammunition remained on board the smack. Quickly the ship was now foundering as Skipper Crisp lay on the deck dying. When the son went to him he heard his father say: 'Abandon ship. Throw the books overboard,' for he was captain to the last, and remembered that the secret documents must not be allowed to fall into the hands of the enemy.

The men asked if they should lift him into the boat, but the old man replied, ‘Tom, I'm done. Throw me overboard,’ he muttered. And as he was in too bad a condition to be moved, and the *Nelson* was dying too, they left him on the deck of his ship, rowed off in the small boat, and within a quarter of an hour the *Nelson* and Crisp went down to the burying-place of ships and men; worthily named patrol vessel, gallant skipper. Dusk came down and covered the sea like a pall, and all that night the sorrowful crew pulled about the North Sea. Then towards morning the wind freshened and blew them out of their course, so they kept rowing throughout that day, with a pair of trousers and a large piece of oilskin fastened to a couple of oars to attract the attention of some ship. Once a vessel was sighted, and once a group of mine-sweepers, but they passed away beyond hail. Came the second night, the weather got finer, and once more they pulled, and daybreak found them still working. Grief-stricken, destitute, weary, hungry, and thirsty, they found a buoy about half-past ten that morning, made fast, and by the afternoon were sighted and rescued. On the same day that *Nelson* was sunk another of these armed smacks, named the *Ethel and Millie*, armed only with a 6-pounder, was sunk. For when they had made a good fight for it and all the ammunition had been fired the crew left the ship, and the submarine came up and took them away prisoners. In fact, the *Nelson's* crew saw them ranged up on the fore deck of the submarine that was heading eastward.

The King was pleased to award posthumously the Victoria Cross to Skipper T. Crisp. His son, T. W. Crisp, received the D.S.M., and came up to Buck-

A Trawler's Crew

To face p. 238

ingham Palace the following December to receive these two decorations. There is no finer breed on the sea than these Lowestoft skippers. I remember one in particular with whom I was honoured to work during the war as his opposite number in minefields and various other jobs. This Lowestoft fisherman was skipper of a steam trawler with a gun and the usual gadgets and a keen sense of duty. One of nature's gentlemen, a keen disciplinarian to his crew, who held him in awe, a magnificent seaman who did wonderful work all the time, you would meet him on patrol with his bearded old head thrust out of the wheelhouse window scanning the horizon for the submarines he always longed to meet. Ashore, on his stand-off day, you would probably run into him with a cigar in his mouth sauntering down the main street looking like a twentieth-century Drake. A kindly, courteous, straight sailorman, he brooked no disobedience. Orders were orders. So when the instructions came that all coasting vessels were to be examined and overhauled if requisite, this skipper hoisted 'MN' ('Stop immediately') to a three-masted little steamer which he suspected of being a submarine supply ship. But the coaster had no intention of stopping for a fisherman, so the skipper after fair warning opened fire with his gun, and the shell fell clean at the steamer's bridge. Fortunately no one was hurt, but this time the steamer did as she was told. The result was that the owners made a complaint to the Admiral, who, in turn, backed up the skipper and congratulated him for having done his right and proper duty. Yes; these skippers are some of the finest fellows in the world, and because they are modest the country knows nothing of them.

It was within a week of Skipper Crisp's death that the Auxiliary Patrol had its revenge. The submarine UC 41 had left Germany with orders to lay mines near Dundee and Aberdeen, and actually had just been laying some in the mouth of the Tay estuary when she heard approaching the minesweepers. These were the trawlers *Jacinth* (Lieutenant F. W. Gray, R.N.R.), the *Thomas Young*, and *Chikara* (the last two commanded by Lieutenant C. S. Burgon, R.N.R., and Skipper James Ballard). It was just before five in the afternoon of August 21, and suddenly there was an explosion, for apparently UC 41 had, in trying to clear out, fouled one of her own mines. The *Jacinth* was only a cable and a half away at the time, so immediately altered course towards the explosion. She and *Thomas Young* were already sweeping, and now continued so to do over this spot, but before long the sweep fouled some obstruction and parted. *Jacinth's* portion came clear, but the *Thomas Young's* was cleared only with difficulty. They surmised quite rightly that this was a German submarine. And then two and a half cables off there came up a German mine of a new type. *Thomas Young* destroyed it, whilst *Jacinth* steamed over the position of the explosion and dropped a couple of depth charges, which also detonated mines in the submarine. Oil and air came to the surface, and then a third depth charge was dropped. *Chikara* now closed and dropped four more depth charges over the oil and the bubbles. After the explosions had ceased, a submerged explosion occurred from one of the mines, and some pieces of woodwork were picked up. *Jacinth* and *Chikara* then used their hydrophones, and the sounds of an electric engine were distinctly heard for about two hours in the same position, when they suddenly ceased. On the following day mine-sweeping operations continued in the Tay estuary, and the armed trawler *Sophron* was destroyed by a mine close to where UC 41 had foundered. A second mine was also discovered. About a month later, after many days of salvage work, a 22-pounder gun was brought up, and I believe this is now in the Imperial War Museum. Lieutenant Gray and Lieutenant Burgon were decorated, the former with a D.S.O., the latter with a D.S.C. Skipper Ballard was also awarded a D.S.C. Later on, after the war, the President of the Prize Court awarded £145 to be divided between these three ships.

The difficulties of the mine-sweepers in various areas were increasing rather than decreasing. The enemy made a continuous attack on the Harwich area, for instance, because of the amount of traffic which was being done with Holland. It was on September 2 that the paddle mine-sweeper *Albyn* was struck aft by a bomb which killed her captain, Lieutenant C. King, R.N.R., and the second engineer. Mines were laid once more—the first time since 1914—off Tory Island to catch the traffic to America; and well knowing that such ships would try to limp into Lough Swilly, the enemy also mined the entrance to that lough. This gave plenty of work to our sweepers based on Buncrana. And there were attacks on mine-sweepers quite apart from the mines, for it was galling to the enemy to see his cargoes being swept up and destroyed. Thus at the end of the first week of September the paddler *Cattistock* off the Fastnet was in action with a submarine, who fired a score of shots against the paddler's twelve. The latter was greatly outranged and her trawl-winch even hit, but there were no casualties. On the following day trawlers and paddlers and M.L.'s were sweeping between Lyme Regis and Berry Head, but their work was hampered by a couple of submarines, who were watching them. Three times had the sweepers to slip their wires in order to engage the enemy with gun and depth charge.

By this time not merely had the mutinous spirit broken out in the High Seas Fleet, but the submarine service was less efficient than it had been. The peak had been passed, the downward curve was now in process. The submarine crews were worked pretty hardly, they received less leave when they returned, their losses were mounting up, their morale was becoming inferior, and there was a striking absence of keenness to serve in these drowning flotillas. They would intentionally overstay their leave, feign sickness—make any sort of excuse to avoid going to sea in submarines. Simultaneously we were beginning to know the tricks of the submarines and their habits. Minefields were laid by us off such places as Flamborough Head to catch them, yet again we find on September 4, 1917, a submarine doing a perfectly futile thing in firing shells at Scarborough, damaging a number of shops, houses, hotels, and so on, chiefly in respect of broken glass. Unless we are to assume that this submarine was consumed with a desire to copy the big bombardment by surface ships when the Scarborough minefield was laid in December, 1914, the action was meaningless. Six mine-sweepers at once put out to sea and fired at the submarine, who made off to the north.

Another submarine mine-layer, UC 42, foundered on her own mines off Queenstown near the Daunt's Rock Lightship in the first half of September. On the 8th of that month the armed yacht *Narcissus* was in action with U 49, commanded by von Mellenthin, and damaged the submarine so seriously that the latter had to put into Cadiz, where she was interned on the 11th, but afterwards escaped and arrived at Cattaro. On the 29th UC 55 was just about to lay her mines off the Shetlands when the mine-sweeping trawler *Moravia* sighted her, and reported the news, so that destroyers were sent out and eventually the enemy was shelled and sunk, *Moravia* claiming also to have hit her.

The Flanders submarines were in the autumn of 1917 being put to considerable inconvenience and their voyages were being made longer by the combined efforts of the Belgian coast barrage, the constancy of our patrols, and the series of British minefields that had been laid in the offing. The enemy was not blockaded, but his cruises were made risky and irksome just at a time when his morale was deteriorating. Instead of travelling by a direct route from Zeebrugge to Dover Straits, he had to go round the eastern extremity of the barrage up to the Schouwen Bank, then outside everything to the West Hinder, and so to the Sandettie and Dover Straits barrage.

As the result of certain nets, several submarines were destroyed in the North Sea this autumn. On the other hand, the enemy underwater craft were certainly showing great enterprise elsewhere. Thus, in October U 46 left Germany for the Arctic and sank shipping, and in the Mediterranean German and Turkish officers had lately been landed from submarines bearing munitions and seditious documents for the Senussi. But at home volunteering for the German submarines was being given up, since most of the volunteers were attracted merely by the higher rates of pay. Therefore men were drafted to these craft irrespective of their wishes, provided they were in other respects suitable. I have been to sea in a British submarine, and I cannot imagine a quicker way to make a crew dissatisfied with their lot than to send them in such craft against their will. The submarine service is not for every sailor, and after the first depth charge had been dropped or the first sharp attack from the patrols, you may be sure that the enemy crew were 'fed-up' and ready to surrender. An exact instance of such a thing happening off the north-east Irish coast will be duly related.

But, in conclusion, we may consider the end of UC 38, which belonged to the German flotilla that used Pola and Cattaro. It should be mentioned that in November, 1917, the Navy were endeavouring to help General Allenby's Army which was busy in Palestine. To this end Gaza was bombarded by our monitors, and because of the submarine menace nets were towed by drifters surrounding the bombarding force, the drifter group being under Lieutenant G. Brand, R.N.R. And both drifters and trawlers were similarly engaged while transports discharged their cargoes of ammunition and food. Between that coast and Port Said the Auxiliary Patrol was engaged in escorting valuable ships, and just before Allenby's advance fourteen other drifters joined from Taranto. Even after the Armistice these craft continued to carry mails, cargoes, and troops up and down the coast, besides maintaining a regular ferry service between Haifa, Beyrout, Tripoli, Alexandretta and Mersina.

But on November 11 UC 38, who was operating off the coast, managed to sink both the monitor M. 15 and our destroyer *Staunch*. She presently went back to her Adriatic base, and left there on the 1st of December with orders to lay mines in various parts of the Mediterranean. On the 14th she was off the Gulf of Corinth when she torpedoed and sank the French cruiser *Château Renault*, carrying about nine hundred troops. A trawler took the cruiser in tow, yet the latter was again torpedoed and then sank. But one of the escorting French destroyers depth-charged the submarine, so that she had to come to the surface, when she was shelled so fiercely that the crew surrendered, jumped into the sea, and the submarine sank. Now, the effect of these depth charges had been demoralizing. They had stopped all the watches on board this UC 38, caused a hatch to leak badly, and thus the water fell on the port electric motor, which soon fused. She then ran on her starboard motor dead slow, but owing to the increasing amount of water in the compartment, the bows of the craft rose to such an angle that all the crew were ordered forward. This caused the water to wash over the starboard motor, so this was fused also. She therefore blew her ballast tanks, came to the surface, and found herself at the mercy of the destroyers.

Thus, in the depth charge the anti-submarine vessels had a weapon which was becoming more and more deadly. It gave to them a power over the enemy which was greater than was at first realized, and the shock of these explosions was most unnerving. After the Germans had been taken on board from UC 38 they fell down on their knees and begged for mercy. The captain of the submarine, who was a reserve officer, climbed up to the bridge and remarked that he supposed the French would shoot him. He was promptly ordered off the bridge, and reminded by his captors that they were not Boches. He will probably remember those depth charges for the rest of his life. The Auxiliary Patrol were able to acquire a confidence by this weapon that was of the greatest value, and the enemy was equally nervous of the determination with which these explosions would be dealt out. And when you remember also the deep mines which were now being cleverly laid in certain places for the unsuspecting submarine, the cruises of these craft with inferior crews were anything but joy-rides. I have been told that many of these submarine personnel are now in German madhouses, and I can well believe it. The story of the United States destroyer *Fanning* sinking U 58 is well known to all who served off the Irish south coast, and the illustration of the surrendering Germans is familiar to the public. That incident does not come within the Auxiliary Patrol sphere except that on the previous day the Queenstown armed drifter *Sunshine* heard suspicious noises on her hydrophone and dropped a depth charge on what was possibly this same submarine near Daunt's Rock Lightship. But it is interesting to note that *Fanning's* depth charge wrecked in U 58 the motors, diving-gear, and oil-leads. The result was that she became out of control, took a crash dive, and actually sank to 278 feet before she came up again, and then followed another explosion, so that internally she was wrecked, disabled, ruined. And that was about the condition of her crew's morale.

Yes; the last year of the war is a most interesting study when we recollect that only a short time before the submarine menace seemed wellnigh insuperable.

CHAPTER XVI

THE FRUITS OF SUCCESS

AND now we come to quite a picturesque and sportive incident wherein the submarine was the hunted and the anti-submarine craft were the keen hunters. The story begins on the 21st of November, 1917, when U 48 set out from Wilhelmshaven bound via the Dover Straits for the coast of Ireland. This much must be admitted: U 48 seems to have been dogged by bad luck. For on the afternoon of the 23rd, when only sixty miles short of Dover, she had almost reached the bottom to wait for nightfall, when an aeroplane dropped a bomb which exploded inconveniently close to her. About half-past seven the same night she was heading for Dover Straits on the surface, with a view eventually to crossing the old net barrage by night somewhere about 2A buoy. But apparently she got out of her reckoning, and before reaching that barrier was too far to the westward, thus fouling the net barrage which we had off the North Goodwins. She was therefore like a blind man trying to find a way out of an unknown position.

Owing to fouling the nets, portions of which were afterwards found still attached to her propellers, her oil-engines gave trouble during this memorable night, and she had to run on her electric motors, although not submerged. At 3 a.m., whilst still on the surface, there came a sudden and ominous bump. U 48 had run hard and fast on to the north-west corner of the Goodwins! Any mariner will tell you that when once a ship gets on the Goodwins it is most difficult, and frequently impossible, to get her off, because she settles down and makes for herself a bed. In that tideway and the cold dark hours of a November night, perilously close to one of our bases, the position of the submarine was an anxious one. In vain her captain tried to coax her off with her engines, so he had to discharge sixty tons of his valuable oil-fuel into the sea in addition to much of his fresh water, his ready-use ammunition, and three of his torpedoes. This made a great difference so that she became water-borne, but still she could not rise out of that bed she had dug for herself, and unfortunately for her the falling tide made her take the ground once more.

This was no small Flanders craft, but a powerful vessel over 213 feet long, with a maximum surface speed of over 14 knots, and able to cruise for 7,600 miles at 10 knots on the surface. She was armed with a 4·1-inch, a 22-pounder, a machine-gun, and six torpedo-tubes. Her conning tower was quite an elaborate affair, able to contain about a dozen men in the super-structure. About 6.30 a.m. she was afloat, and it being now just twilight the Ramsgate drifters were approaching from the north-west to sweep the traffic channel. These were the *Majesty* and *Paramount.* Coming up from the south patrolling was the trawler *Meror*, who suddenly sighted less than a mile and a half away the now floating submarine. She hurried north and began firing on the enemy. But almost simultaneously the drifters *Majesty* and *Paramount* saw the glad sight, slipped the sweep wire, and together with three other armed drifters, *Present Help*, *Acceptable*, and *Feasible*, went after the big German

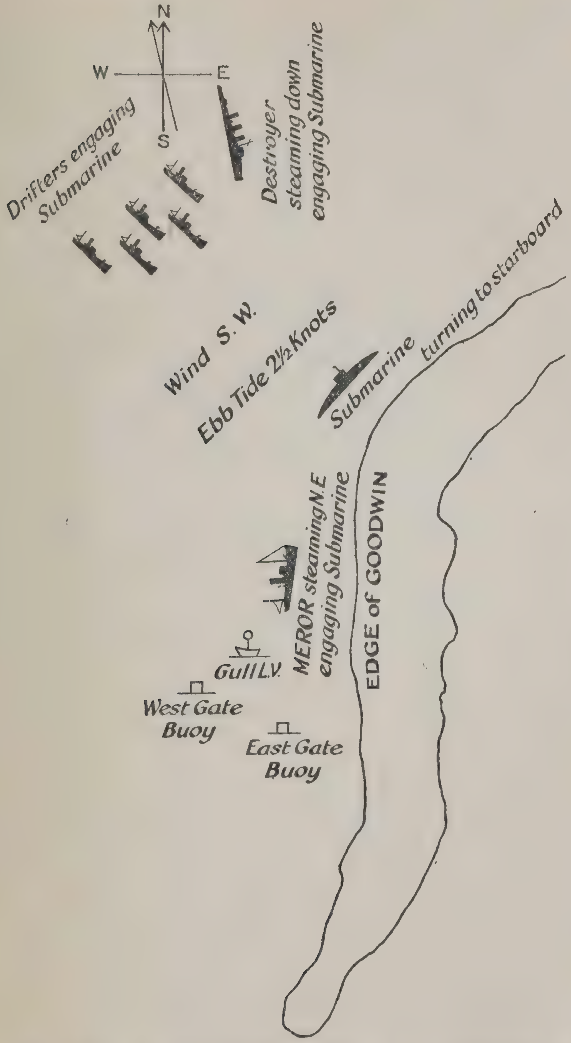

N
W
E
S
Drifters engaging Submarine
Destroyer steaming down engaging Submarine
Wind S.W.
Ebb Tide 2½ Knots
Submarine turning to starboard
MEROR steaming N.E engaging Submarine
EDGE of GOODWIN
Gull L.V.
West Gate Buoy
East Gate Buoy

FIG. 12.—PLAN OF ENGAGEMENT WITH U 48, NOVEMBER 24, 1917.

'like a pack of hounds,' as an eye-witness remarked. Now, these drifters had nothing better than a 6-pounder, one of them had a Maxim gun as well, but one of them had a 3-pounder and nothing else. In regard to armament the sides were hardly well matched, and the only thing to do was to close the range and concentrate. This the drifters proceeded to do. It was a tricky place to manœuvre in that tideway at the edge of the sands, but all were so keen to get at the enemy that little else mattered. The *Feasible* stood in as close to the Goodwins as possible, keeping a couple of hands sounding with the lead throughout the action. Another drifter, the *Paramount*, in her eagerness to get close up to the enemy, even struck the ground within thirty yards of the submarine.

Using their little guns, the Ramsgate drifters began the day of their lives. At first their shots fell short, but they continued to close until they were hitting the enemy, who was fighting hard and returning a heavy fire with his 4·1-inch and 22-pounder guns. Shells were falling all round the drifters and the *Paramount* had been hit, when just after seven there arrived from the northward the destroyer *Gipsy*, who at 2,000 yards range opened fire with her 12-pounder, and then with her 6-pounder, the fourth and all subsequent rounds being hits. Thirteen times was the enemy now struck. After about a quarter of an hour he was seen to be on fire forward, and the German commanding officer (Lieutenant-Commander Edeling) now had the confidential books destroyed, gave orders for the craft to be abandoned and explosive charges to be attached to her. The crew leapt overboard, the submarine blew up, and one officer and twenty-one men of the forty three were rescued. When first sighted the submarine was steering south-west afloat, but on being shelled by the drifters and *Gipsy* she had altered course and got aground again. Throughout the engagement the drifters cared nothing for the enemy's shells; they merely thought of making a fine job of what had to be done. The enginemen off watch assisted in passing up the ammunition, and the sight of these drifters coming up in line abreast within a hundred yards of the enemy was most glorious. From the *Paramount's* wheelhouse roof her Maxim gun did excellent work in killing some of the enemy. Wind and sea were now rising, but the day had begun well, and they could now get on with the sweeping for the traffic to proceed. Admiral Bacon was well pleased with the drifters' gallantry, remarking that 'it is one more example of how the Ramsgate drifters and the Auxiliary Service of the Navy know how to meet and fight the enemy.'

The Admiralty awarded £1,000, to be divided between *Present Help*, *Paramount*, and *Majesty*, and in addition Lieutenant-Commander F. W. Robinson, R.N.R., of the destroyer *Gipsy*, received a D.S.O. Skipper E. Hemp of *Paramount*, Skipper R.W. Barker of *Majesty*, and Skipper T. Lane of *Present Help* were all awarded a D.S.C.

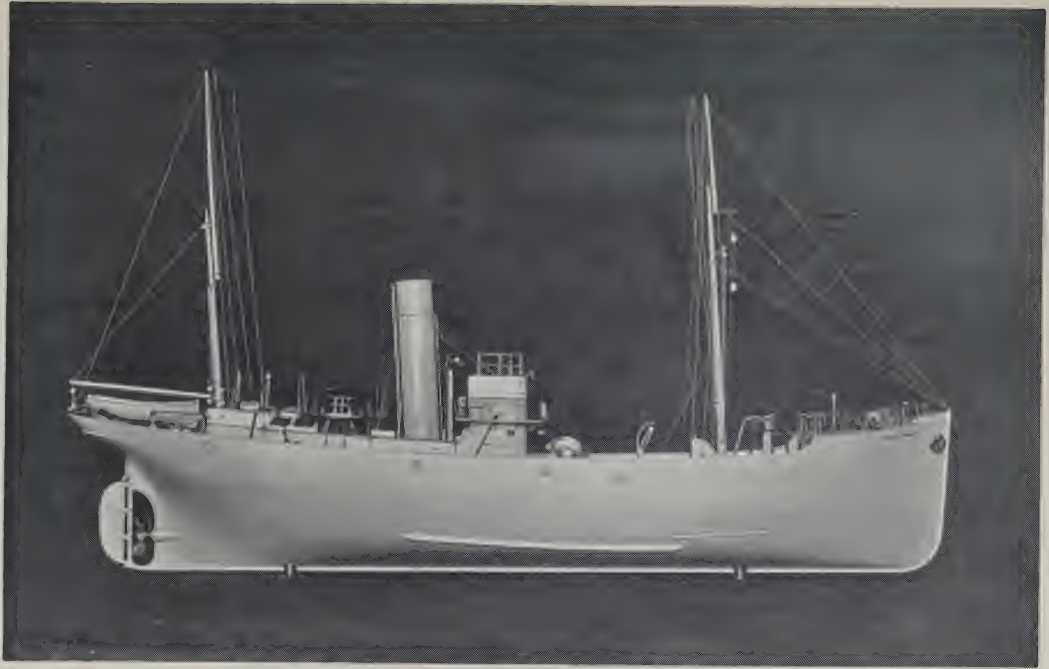
The mine-nets laid off Flamborough were able to account for the destruction of UB 75 before Christmas, and on December 12 there occurred still another incident which well illustrates the keen fighting spirit which dominated every section of the Auxiliary Patrol. It occurred at the western end of the English Channel while screening the French coal trade convoy. The time was half-past seven in the evening, and M.L. 357 was about a mile and a half eastward of the leading ship and on the port beam of the convoy. After passing through a small bank of fog, this M.L., commanded by Lieutenant J. F. B. Kitson, R.N.V.R., suddenly sighted immediately ahead, and only about seventy-five yards off, a submarine lying broadside on and apparently submerging. Without further hesitation Lieutenant Kitson went full speed and ported his helm with the intention of crossing the submarine's path and attacking by means of gun and depth charge. But nothing was visible except the conning tower, and that was abaft the M.L.'s beam, so the latter's gun would not bear. Lieutenant Kitson therefore decided to ram. Going at 18 knots he took his wooden ship at the enemy with such force that he went clean over her from starboard to port. So severe was the impact of collision that the M.L.'s engines were instantly stopped and the enemy was observed to be diving at a sharp angle. One shot was now fired from the M.L. before the enemy completely disappeared, and when the latter returned to the surface shortly afterwards going towards the convoy, the M.L. opened fire again, two of her shells appearing to burst against the submarine's hull amidships. M.L. 357 had not succeeded in destroying the enemy, but had probably injured her and thus protected the convoy. The M.L. herself was now in a bad way, considerably damaged aft, making water fast, and settling down by the stern. She was taken in tow by an armed trawler, and after being kept afloat with great difficulty was eventually beached in a sinking condition off Penzance. Lieutenant Kitson was rewarded with a D.S.C.

The enemy's mining policy during 1918 is extremely interesting. He still continued to foul the Harwich area as he had ever since the summer of 1915 and the UC craft had been put into commission. But though there were these dangerous areas all round the British Isles, it was apparent that they were all being laid with definite and important aims, such as against the Anglo-Dutch trade, which was known jokingly as the 'beef trip'; on the tracks of the Scandinavian convoy; off the Firth of Forth against our capital ships; off the Mersey because of the arriving U.S.A. troops; and so on. But between April and August, 1918, there was formed what we may rightly call a great mine barrage well away from the Scottish east coast on a forty-five miles radius from Bell Rock, the object being to trap the Grand Fleet coming south, and so far from the shore that it would be difficult both to discover this field and to get stricken battleships into port.

Now, this seaward barrage is really one of the romances of the war. All that summer the enemy submarines came across and deposited their mines, averaging about thirty eggs a trip. They went back empty, filled up again, and extended the dangerous area. It was a vast scheme, cleverly conceived and patiently carried out, and the secret was kept beautifully. But we managed to discover these groups, one by one, and to penetrate into the enemy's mind. Gradually, as the mine-sweepers went about their job, the whole scheme revealed itself as soon as you plotted it out on the chart. But nothing was said, and as each mine group was laid, it was quietly swept up without the enemy's knowledge. The spoiling of the enemy's great idea did, however, put an unprecedented strain on our mine-sweepers, and from other bases they had to be concentrated on the Firth of Forth. By the end of October there was a fleet of sixty of these craft there, for if the safety and welfare of the Empire and Allied cause depended on the existence of the Grand Fleet, the latter in turn looked to the mine-sweepers to be allowed to move over the sea without steaming into hidden dangers. Of all the grandiose, ambitious enemy schemes, which on paper seemed certain of success, this must have been one of the most disappointing in its results.

Nor is that all. By the end of October this seaward barrage was presumed by the enemy to be complete, and there came a sudden and ominous lull in mine-laying. But simultaneously a great concentration of submarines was made to the east of this barrage, which went on into the beginning of November. You can see now the plan. The High Seas Fleet would emerge and lure the Grand Fleet out of harbour on to the seaward mine barrage and the submarine concentration, and you will find this basic idea running through the German mind all through the war. The raids on Gorleston and Scarborough were less for the purpose of bombarding the coast than for advertising their presence and so luring Commodore Tyrwhitt's Harwich light cruisers and the Grand Fleet into the mine-strewn areas. And in a smaller way the submarines occasionally attempted the same plan.

Then why did the High Seas Fleet not carry out the completion of the scheme, when once the mines were laid and the submarines concentrated from so many areas to the district off the North-East Scottish coast? Why go to all this vast trouble and spoil the effect? The answer is that on the night of October 29, 1918, the High Seas Fleet was ready, lying in Schellig Roads, about to put to sea and make the greatest gamble in the war. This was the night before Turkey was to sign the Armistice, and if Germany could cripple some of our battle-fleet units, it would mean better terms for herself at the approaching



Trawler 'Daniel Henley'
With gun mounted abaft funnel.

To face p. 254

conference. Well, what happened? On being ordered to sea the men of the High Seas Fleet 'chucked their hand in,' as the sea-saying is—mutinied. And on November 9 the German Revolution took place. A German naval officer, Lieutenant-Commander Fikentscher, may be quoted as authority for this.* Moreover, when on November 15 the German Admiral Goette in the *Königsberg* was ordered to meet Admiral Beatty at a rendezvous off the Firth of Forth, he arrived late with the apology that he had proceeded southward in order to avoid a German minefield. We had already swept it up some time before!

It should be mentioned that the use of the newly invented paravane was a means of adding to the safety of both warships and merchantmen, but at the back of this there was the careful routing of merchant traffic into the safe lanes, the well-organized mine-sweeping routine, and a buoyed, swept channel now actually right away from May Island (Firth of Forth) southward down the North Sea, past Dover and westward to Portland Bill. Look at the chart or map and you can guess the number of ships and men daily required for that sweeping alone.

Gradually the 6-pounders where they existed in armed trawlers were being replaced by 12-pounders, and the 6-pounders given to drifters which mounted 3-pounders; various types of hydrophones and more powerful depth charges were also being supplied to the anti-submarine vessels. The Dover flares, which were being used in the Straits with such success, were also being employed in the Otranto Straits and the North Channel. And all this time the Belgian coast barrage was needing regular attention to keep it in a state of efficiency. If the nets were to be any good at all, they required examining and replacing where they had become defective. It was while engaged on this duty in the forenoon of January 23, 1918, near the Thornton Ridge, that the drifter *Clover Bank* had an experience which showed what it meant to be at work off the enemy's harbours.

---

* See *The Times* newspaper of November 15, 1920.

In naming ships of the Royal Navy it is customary to repeat the nomenclature time after time of some ship that has made history. There have been in the past various *Londons*, *Britannias*, and *Dreadnoughts*, for instance, and quite recently a *Vindictive* has kept the name alive of a distinguished ship, as the Germans named a new light cruiser towards the end of the war after Captain Müller's famous *Emden*. But in the annals of the Auxiliary Patrol the name *Clover Bank* is already famous in its own way. The first drifter of that name was a 78-ton craft which at the occasion of the laying of the first Belgian coast barrage on April 24, 1916, was sunk by the enemy. On the next day the drifter *Au Fait*, which failed to get the order to retire from patrol on the previous night, was shelled by German destroyers, captured, and her crew taken prisoners.

But another drifter, which was built in 1917, was given the name *Clover Bank*. She was a 92-ton craft, and apparently inherited the same character for adventure as her namesake. For on this January day her commanding officer (Lieutenant D. T. Webster, R.N.R.) noticed that shots were beginning to fall, and then sighted five enemy destroyers coming full speed at right angles to the drifter. She was only armed with a 6-pounder, though the monitor M. 26 was supporting her a thousand yards away. Lieutenant Webster sent his men to action stations and fire was opened and a hit was actually scored against the bridge of the second destroyer. The enemy now increased the rapidity of his fire, and shells began to fall all round the *Clover Bank*. On the destroyers came rushing over the sea, and things looked serious enough for the drifter; but she now ignited her smoke-box, threw it over the stern, and thus made a smoke screen. When this fog had cleared away, the enemy destroyers were found to be separated, three on each of the drifter's quarters and two astern about five thousand yards away, but rapidly overhauling her and about to cut her off. But the drifter kept on firing at the enemy.

Realizing that the Germans would soon board and capture his ship, Lieutenant Webster ordered the engineer to be ready to open the sea-cocks, and then threw overboard the confidential books, for now the destroyers were not more than a mile and a half off, still firing and using even their machine-guns. But then something happened. Just at the right time, just when the crisis was reached, two British destroyers were sighted by the drifter's crew three miles away, coming up from the westward each with a bone in her teeth as the fine bows cleft the cold sea. Astern of them, too, were the rest of the patrol, hurrying on as fast as their engines would let them travel. This was too much for the enemy, who altered course and steamed back to Zeebrugge. For three-quarters of an hour this engagement had lasted; the enemy had made not a single hit. But it had been a near thing. For their behaviour in this incident the Admiralty sent an appreciative message to Lieutenant Webster and ship's company. But then, as the reader will remember from another chapter, this second *Clover Bank* was to have the last and most exciting experience of all when she was sunk three weeks later on the night of the Dover raid, February 14-15, for she and six of her sisters went down. If ever there should be another war in which the Auxiliary Patrol has to be mobilized, I hope that one of the craft may keep up the gallant tradition under the name *Clover Bank III.*

On the night of January 25-26, 1918, there was a fog in the Channel, so that the drifter *Beryl III.*, who was patrolling over the Folkestone-Gris-nez deep minefield, lost touch with her division. At eight o'clock next morning she was steering east to close the Gris-nez fog-signal when she sighted an enemy submarine stationary. *Beryl* opened fire with her gun, the second shot appearing to hit the base of the conning tower, and then the enemy—a big fellow, 225 feet long, with a couple of guns—dived quickly, showing his propellers. Two hours later, having been compelled to remain submerged, the submarine hit either one or two mines, and so it was that U 109 was driven to destruction by a drifter. Skipper J. H. Bullock, *Beryl's* commanding officer, was awarded a D.S.C., and the sum of £1,000 was awarded to the crew. But before the necessary office routine had taken place, there had occurred that disastrous raid to the Dover drifters of February 14-15; so *Beryl's* ship's company, like the good fellows that the fishermen were, requested that £500 of this money be paid to the Mayor of Dover's fund to be earmarked for the widows and children of the drifters' crews who lost their lives that night.

The Dover deep minefield was still doing well, and the drifters and other patrol vessels continued to drive the enemy to destruction. On the night of February 8 UB 38, one of the smaller craft, 121 feet long, with net-cutter and one 22-pounder, was trying to get through our patrol on the surface towards the French side of the Folkestone-Gris-nez barrage, when the drifter *Gowan II.* spotted her in the beam of a trawler's flare. *Gowan* went after her at full speed, and within twenty minutes of being sighted the submarine had been compelled to dive, and then occurred a heavy triple explosion which fairly shook the drifter. It was UB 38 going to her doom among the mines. Another £1,000 was divided among the Dover trawlers and drifters, but they requested, when the opportunity presently came, that the whole amount should be paid over to the Mayor of Dover's fund. It was, in fact, the success of these patrol vessels in driving the enemy into this efficacious barrage that made the enemy raid the drifters within a week after the loss of this last submarine. For when certain of this Flanders flotilla failed to report by wireless after passing through the Dover area, it was sufficient intimation to the German Naval Staff that at last there was a real barrage: it must be sunk. Little did they realize then that there was a deep minefield too.

Before the end of the month UB 17 had been sunk at the western end of the English Channel by two destroyers and the trawlers *Wimple*, *Robert Betson*, and *John Pasco*, and then in the early hours of March 10 the Auxiliary Patrol vessels on the Dover minefield barrage succeeded in making UB 58 dive and blow up. For the flare from the trawler *Jaboo II.*, and the division of drifters *Begonia*, *Regain*, *Arndilly Castle*, *Azarael*, and *R. Mackay* across her path made the submarine conform to their will. Thus another £1,000 was disbursed among these six craft, each skipper's share amounting to over £23. But drifters distinguished themselves not merely in ridding the seas of these pests, but in saving the lives of fellow sailormen. On the night of March 14 the Poole drifter *Reality* (Lieutenant J. P. A. Richardson, R.N.V.R.), was patrolling at the back of the Isle of Wight, listening on her hydrophone, when she heard an explosion about six miles south by east of St. Catherine's.

Proceeding in that direction she sighted a light, and then the dots and dashes of the Morse code began to prick the night. 'We have been torpedoed,' the letters spelt out. 'Will you stand by?' To this *Reality* answered 'Yes; am coming,' and hurried towards the light. Once again came the Morse message. 'We are sinking,' it read; and then the drifter could make out the loom of a 5,000-ton steamer. It was the S.S. *Comrie Castle.* Nine lives were lost, but the drifter managed to pick up the master, nine officers, and fifty-one of the crew. The steamer disappeared, but she was afterwards beached.

By the spring of 1918 the new standard Admiralty-built drifters began to be added to the Auxiliary Patrol. These were extremely handy, drew very little water, and were found useful for mine-sweeping in-shore. But submarines were to make a record in April, for in that month one of the enemy's so-called cruiser-submarines went so far south into the Atlantic as to lay mines off Sierra Leone, and so there was work off this African coast for sweepers. In European waters this month the submarines dropped mines off ports where troops were being shipped between France and England, Havre being heavily mined. In the same way Alexandria was systematically treated.

In the Dover mine barrage success still went on. Dead men tell no tales; a submarine that has dived to destruction is unable to warn her sisters. Thus it was that the secret of the Dover deep mines was well kept; the enemy's staff must have been continuously wondering. All that they knew was that the Dover Patrol was now dangerously active. In this same April the division of drifters comprising *Ocean Roamer*, *Kessingland*, *Loyal Friend*, *Herring Seeker*, *Harvest Hope*, *Lord Leitrim*, and the trawler *Fuji* were to win £1,000 for causing UB 33 to perish by mines in the usual manner, leaving nothing behind except a sea of oil and wreckage following a dense cloud of smoke and water in the air. But this April was a wonderful month on both land and sea. It was as if both sides were determined to bring the war to an end by the utmost fierceness. There were anxious times among our soldiers; at home there were rumours that at last our country was to be invaded. All the time the toll of enemy submarines was being exacted, and now good-fortune was to come not merely to the Dover drifters, but to their sisters in the North Channel.

It was well that this should be. In the vile Atlantic seas that come rolling in between the shores of Scotland and Ireland these drifters had spent three years of monotony and hardship, away from all the glamour that belonged to the Dover Straits. But the enemy had begun to pay the North Channel the compliment of his attention. Through here passed liners and convoys from America bringing men and munitions for the armies in France. The Germans came not in one submarine but in twos and threes, and big steamships like the *Tuscania* of fourteen thousand tons began to be sunk, the enemy deliberately lying in wait about the Channel for days until the object of his visit arrived.

Harassed and hunted by patrol craft these submarines certainly were, and they were often completely foiled of their prey by our vigilance. The same daring resolution, the same desire to get at the enemy that characterized the drifters of Dover, Ramsgate, the Adriatic and everywhere else, was to manifest itself in the North Channel as soon as opportunity was offered. Now, about half-past five on the evening of April 17, the drifter *Pilot Me* had the good-fortune to sight a periscope off Torr Head, North Ireland. There it was on his starboard quarter only fifty yards away, so Skipper A. Walker turned the *Pilot Me* round, made for the enemy, and dropped depth charge after depth charge as he zigzagged his drifter across the mean course of the enemy. Presently *Pilot Me* stopped, listened on her hydrophone, yet heard nothing. But the prompt dropping of these charges had so seriously damaged the enemy that she was compelled to come to the surface a quarter of an hour later between *Pilot Me* and another drifter, *Young Fred.* Various drifters were now at her like a lot of terriers. Unable, because of the depth charge damage, to submerge for a time, she was now being shelled so heartily, and at two or three hundred yards, that she had to dive to get out of it. But *Young Fred* was too smart for her, steamed towards the spot, and dropped a couple of depth charges right over the exact place.

There followed the usual explosions caused by these two bombs going off, but then came another of such vehemence, throwing a column of water above the *Young Fred's* masts, that her consorts thought this drifter had gone too. And then when it all subsided there was nothing remaining of UB 82 except some of her woodwork fittings, painted gratings, and such articles as a couple of seamen's caps with *Unterseeboots Flotilla* on them and the men's names inside. This was a very creditable performance on the part of the drifters, and showed that there was no lack of zeal or of vigilance on the part of these war-worn patrols. One has no wish to gloat over the losses of a defeated foe, but there is no gainsaying that when we did sink these submarines their crews suffered the most terrible deaths. Shortly after the Armistice I remember taking an army officer over one of these German submarines. He was an old campaigner who had served through the Boer War and in France, but the cramped quarters and the general conditions of existence in these craft appalled him more than he could express in words. A crippled surface ship is always in an unpleasant predicament, but for sheer desperate conditions what is there to beat a mortally wounded submarine? Holed, engines out of commission, men lying dead and dying in the narrow alleyways, poisonous fumes coming up from the bilges, all the electric lights knocked out, the sea pouring in and compressing the air till the crew's lungs were burst in agony — yes, some of these 'unterseeboot' people suffered the worst pains which naval warfare can invent.

And yet the enemy had to be destroyed; there was no alternative. Our ships and convoys in this Channel were being attacked right and left. Shipping was the vein of our life-blood if we were to exist and continue the war. Some of the biggest vessels in the world were being torpedoed in this Channel, and the American troops, to say nothing of our Mercantile officers and men, were being jeopardized. War is an ugly game, but at least our own sea-fights were clean cuts and in accordance with the game's rules. For this successful operation in sinking UB 82 Lieutenant T. Kippins, R.N.R., whose drifter *Young Fred* had caused the final destruction, was awarded a D.S.C., as was Skipper A. Walker, whose *Pilot Me* had first crippled the submarine. A deckhand from each of these two drifters received the D.S.M., and several other skippers and deckhands received ‘mentions.’

CHAPTER XVII

THE GREAT SURRENDER

But I suggest that nothing could be more eloquent of the Auxiliary Patrol's efficiency in the North Channel than the following episode. If we should require evidence of the silent, steady pressure of this improvised new Navy even at a time when they were inclined to imagine their own value was small just because they had little tangible to show, I think we have it here. It shows that the ceaseless, unremitting work of these ancillary craft was one of the greatest forces which broke the submarine campaign, and so contributed, perhaps in a manner that is not fully realized, to the victory that came to our armies. How? Simply because it would have been impossible to have kept the sea communications open without the Auxiliary Patrol's aid.

The middle watch is the time when human nature is not at its best, and Napoleon knew what he was talking about when he spoke of 'four o'clock courage.' It was actually just before three in the early morning of April 30, a fortnight after the sinking of UB 82, that the Larne drifter *Coreopsis* (Lieutenant P. S. Peat, R.N.R.) sighted in the North Channel the conning tower of UB 85. This class of submarine was 181 feet long, with a surface speed of over 13 knots, armed with the usual 4·1-inch gun, a machine-gun, and five torpedo tubes. She had left Heligoland in the middle of April, come round the north of Scotland, and then begun operating on April 23 between Inistrahull and the Mull of Galloway. She had thus been here a whole week when *Coreopsis*, steaming along at 3 knots to the westward about eleven miles east of the Maidens (N.E. of Larne), saw her proceeding on the opposite course at 12 knots.

Quick as a flash *Coreopsis* altered course and was after her at full speed, fired a couple of rockets, and sent out wireless calls that she was attacking a submarine. UB 85 came across the drifter's bows, and Lieutenant Peat began firing at her with his 6-pounder at point-blank range. The first shot seemed to hit, the second missed, the third seemed to hit, and so the fun began. *Coreopsis* continued to fire, but, owing to the heavy north-east swell, and being between the moon and the submarine, accurate shooting was very difficult. For a time the enemy motored rapidly away, but the drifter followed as fast as she could, and this doggedness in spite of inferior speed was to have a dramatic sequel. The very best speed of a drifter is about 8 knots, but 6 is generally nearer the mark, so the enemy had a tremendous advantage, could have chosen his own range, and shelled *Coreopsis* with her big gun to destruction. But no; at three o'clock the submarine altered course to the N.N.E., stopped, and fired a white Very's light. What did this mean?

As the drifter came up, *Coreopsis* heard the German crew shouting in unison: 'I will surrender; we are your prisoners.' Seeing that UB 85 was making no attempt to attack or escape, Lieutenant Peat could only conclude that the submarine was damaged, so he decided to try and capture her, but still it seemed a little extraordinary. Porting his helm, Lieutenant Peat passed close astern of the enemy, who had again exclaimed that they surrendered and were his prisoners. But he was still suspicious, and manœuvred his drifter so as to bring the enemy into the moon's rays, and now opened fire as the submarine's gun was plainly visible and required to be put out of action. In this I considered he was perfectly justified, for those of us who served off the Irish coast know the tricks which enemy submarines employed to lure unsuspecting ships on, such as pretending to be a distressed torpedoed craft and calling for help by wireless, only to attack the rescuing vessel when she arrived.

But after firing seven more rounds *Coreopsis* realized that the enemy was indeed making no effort to attack, so she ceased fire, but kept her bow towards the enemy and the gun trained. Then, approaching within hailing distance, she stopped and told the German that if the latter moved his engines he would be fired on. Watching carefully all the time to see that the 4·1-inch gun was never manned, *Coreopsis* waited, and at four o'clock that morning other patrol boats began to arrive. It was now that Lieutenant Peat sent away his small boat with his second hand David Christie, R.N.R., and two deckhands, with orders to approach the submarine, but not to close her. Lieutenant Peat then hailed the enemy and told the Germans to jump into the sea and the boat would pick them up. This they did, and so Christie made four boat-trips between the submarine and drifter, bringing on board the prisoners.

And now the drifter *Valorous* was arrived to help in this nocturnal operation, so she launched her boat, manned by the second hand and two more of the crew, and made a couple of trips. At half-past four the submarine sank and then the captain, Lieutenant-Commander Krech, and the four remaining Germans went overboard and were picked up by *Coreopsis*' boat. Thus, in addition to the nine prisoners in *Valorous*, there were now three German officers and twenty-four men aboard *Coreopsis.* Seeing that the latter's personnel comprised only Lieutenant Peat, Skipper George Stubbs, and ten men, and remembering that the enemy was already notorious for every kind of trickery, there was certainly some risk in having twenty-seven of them. But as they came aboard the prisoners were carefully searched for arms, and then Lieutenant Peat was able to send in a wireless message to Larne requesting permission to return to base with prisoners! What a glorious moment in life to be in such a position! How the whole Auxiliary Patrol would envy him! It was like the realization of those dreams which everyone had on setting out to the war, as the soldiers used to think of what they would do to the Kaiser, or fourteen years before they planned all the way out to South Africa what they would say to Kruger.

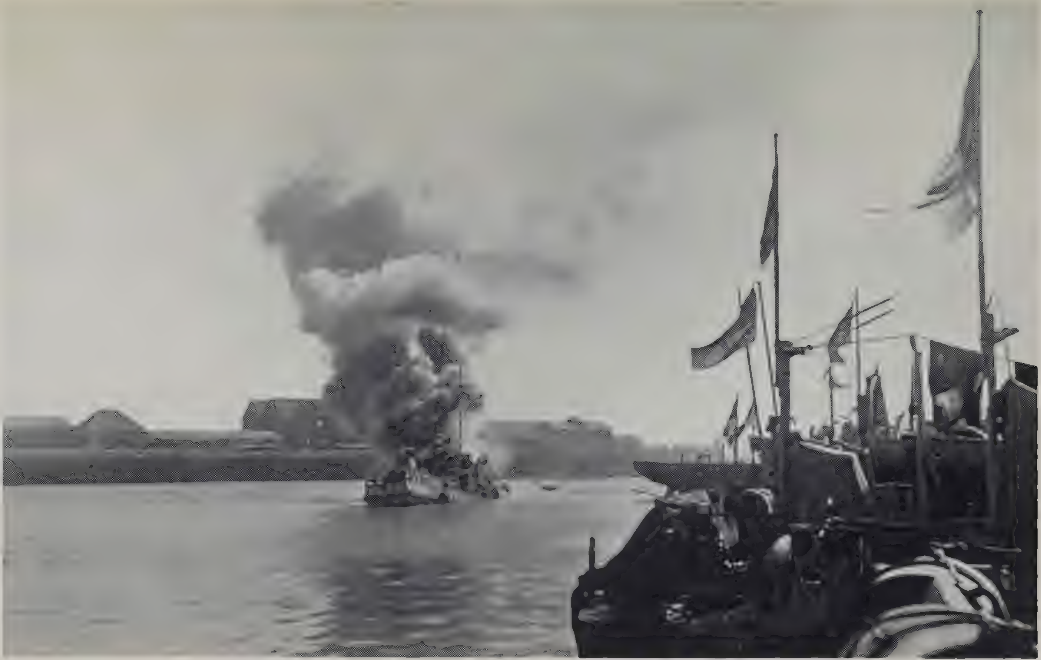
But now several drifters and trawlers were present to prevent any 'dirty work,' so, escorted by the trawlers *Lewis Reeves* and *William Symons*, the *Coreopsis* steamed into Larne before eight o'clock that morning, and the prisoners were handed over. Yes, it had been an amazing little adventure, hardly credible, you think. But that is because we haven't yet seen it from the enemy's point of view. Peat and Krech had a conversation on the subject. 'Why didn't you attack me?' questioned the former; and the reply came in broken English; 'I had been down two days. My crew were all ill with gas. I could not submerge as my conning tower was damaged; and as I saw you still firing and saw other ships—what was the use?'

For it turned out that these perpetual patrol craft had kept this submarine continually submerged for the last two or three days, and that there had been trouble with the batteries, and the chlorine from these in no way improved the men's fighting spirit. Then the shells from *Coreopsis* had jammed the conning-tower hatch so that they were unable to close it and could not dive. At any rate, after submerging they found the water pouring in through this hatch, and they were compelled to come to the surface again. Fifteen tons of water had got in, men were wading about up to their knees, the sea-water had got into the batteries, and the crew were therefore being asphyxiated. There were only nine rounds of ammunition left, and owing to the water it was impossible to reach the remainder of the magazine. All the same, I think it is agreed that Krech, who was obstinate and indecisive by nature, and not a successful submarine officer, surrendered his ship before he ought. And one cannot imagine Hersing or some Arnauld de la Périère and certain other experts would show the white flag or rather fire the Very's light and instruct the navigating warrant officer to flash 'S.O.S.' with his electric pocket-lamp when they saw *Coreopsis* approaching again.

But as to the conduct of Lieutenant Peat and Skipper Stubbs and the whole crew of *Coreopsis* it is impossible to speak too highly. Bravery, caution, zeal, determination, wisdom, vigilance, initiative, fearless attitude—these attributes were all splendidly displayed. It was the excellent look-out that was being maintained, the promptness in attacking single-handed an enemy of far superior strength, that brought about this additional glory to the scroll of the Auxiliary Patrol. As a distinguished officer of the old Navy remarked, it was 'worthy of the highest traditions of the service.' The Admiralty thought so too, for £1,000 went to *Coreopsis*, Lieutenant Peat received a D.S.O., Skipper Stubbs a D.S.C., and David Christie a D.S.M.

In the Dover Straits the flare-trawlers were forming a kind of illuminated ring round the surface of the sea between Folkestone and Gris-nez, with the mines waiting below. The drifters were patrolling down the centre of the field along the line of mooring buoys, and also burnt flares when a submarine was sighted. And besides these there were monitors, destroyers, P-boats, and trawlers, so the passage for any enemy submarine was now a perilous one. On April 22, just after 4 a.m., the drifter *Shipmates*, whilst patrolling between No. 12 buoy and the Varne Shoal, was shaken suddenly by a heavy explosion. On searching the neighbourhood three live Germans were presently found in the water at daylight by herself and three by the drifter *Seaflower*. For UB 55 on her way from Zeebrugge, which she had left on the previous night, had proceeded on the surface when she evidently sighted our drifter patrol. Her captain had just given orders to submerge to forty feet and the submarine was just taking this depth when she fouled our mines and finally touched the bottom. The six survivors had all lost consciousness by the time they were rescued, and they were lucky that the ever-watchfulness of the drifters found them.

But now came the turn of the M.L.'s to have a chance in destroying these submarine pests. It has been seen that the work of these motor craft was, like



On Fire

This M.L. was cut in two by a French destroyer off the Belgian coast during a bombardment. After being towed stern first into Dunkirk she caught fire.

To face p. 279

that of the drifters, varied and unceasing. Perhaps few patrol vessels were so tiring to their crews as these motor launches. Had a committee of experienced amateur sailors been appointed as advisers, with the benefit of their years of cruising in small ships in the Narrow Seas, better designed craft would certainly have been evolved, something perhaps rather on the lines of the submarine-chasers which the United States had built for themselves as soon as they entered the war, and were sent over to France, the British Isles, Adriatic, and elsewhere. These were thirty feet longer than our 80-feet M.L.'s, and the proof of their seaworthiness is that these chasers were able to cross the Atlantic on their own bottoms. Slower than our M.L.'s, they were more strongly built, and in the event of any future war the model of the sub.-chasers is deserving of study in preference to that of the M.L.'s. Still, the latter were wanted in a hurry. I believe the contract for the first fifty M.L.'s was signed in July, 1915, and the first delivery was to be by the middle of the following November, being transported to England four at a time aboard each ship. The first boat was built in New Jersey, where all the fabrication of the various parts took place, and then the latter were assembled in Canada and fitted with two American engines each of 220 horse-power. Properly handled by men who had been accustomed to sailing craft, these little wooden ships rode through some remarkable weather. Having spent a year in command of a steam drifter and then a year in command of an M.L. where the Atlantic hits the west and south coasts of Ireland, I know something of their comparative merits, and one comes back to the old saying that a small ship will often go through far worse weather than a man has the heart to ask her to endure. Off that coast these M.L.'s assisted in salving torpedoed ships, chased submarines, swept up minefields, guarded the coast and long fjords from any attempt to land arms, and performed a multitude of duties.

Similarly in the Otranto Straits about two o'clock on the night of April 18 M.L. 168 sighted a large enemy submarine on the surface coming south, and only a hundred yards ahead. The M.L. attacked with her 13-pounder, which burst on the hull just as the enemy was diving, and then having followed along the enemy's course a depth-charge was dropped and finally a second. After the explosion a black object resembling the conning tower was seen above the surface by M.L. 190, and nothing was seen again. The submarine was not sunk but probably seriously damaged, and Lieutenant F. Paget, R.N.V.R., the commanding officer of M.L. 168, received a 'mention' in despatches.

But just three days after this, at the opposite end of the Mediterranean, another M.L. was to have better luck. It was about four in the morning and the scene was near the Straits of Gibraltar, four and a half miles from Almina Point (Ceuta).* At this time M.L. 413 was keeping watch on her hydrophone when she heard sounds of an engine approaching at high speed from the west. Engine-room telegraphs were at once put to full speed, and bow lights switched on to avoid a collision, but two minutes later the expected vessel was found to be a submarine, which now altered course and passed across the bow of the M.L. only ten yards away. The enemy submerged, but the M.L. followed her wake and then dropped two depth charges, stopped, put over the hydrophone and listened, but nothing was heard till one of our

* See also Chapter XIX. for another successful M.L. action off here.

torpedo-boats arrived later. But there was no question as to what had happened, for at daybreak large quantities of oil covered the sea and four pieces of wood recessed for ammunition, pieces also of a varnished mahogany door fitted with steel hinges which had evidently only just been in the water and splintered with small fragments of metal. This, in fact, was one of the cabin doors of UB 71, and for having assuredly destroyed her Lieutenant Joseph S. Bell, R.N.V.R., was awarded a D.S.C.

Thus, some of the pre-war ideas had now received a shock. Wooden ships both slow and fast, drifters and M.L.'s, had proved themselves even when lightly armed more than a match for such subtle, up-to-date creatures as the steel submarines. Fishermen and yachtsmen and junior officers from the Merchant Service had beaten the skilled professional enemy naval personnel at their own game. It was not luck but downright hard work, the cumulative effect of the four years that were now fast running out. Encouragement we certainly required at that time, for it will be recollected that a prolonged crisis was going on abroad. On March 21 had begun the second Battle of the Somme, which lasted until April 5; the Battle of the Lys had been waged from April 9 to April 29; and this was to be followed on May 31 by the Germans reaching the Marne, from which they retreated on July 20. But another naval adventure was about to be brought about which is one of the finest incidents in the whole library of history, with which the M.L.'s were so closely connected that, as Admiral Tyrwhitt recently remarked, without the Auxiliary Patrol the operation could never have taken place. I refer to the historic night of April 22-23, 1918, when an expedition was made against Zeebrugge and Ostend.

CHAPTER XVIII

THE OPERATIONS AGAINST ZEEBRUGGE AND OSTEND

ADMIRAL JELLICOE has told us* that after the Germans occupied the Belgian coast in the first autumn of the war, he and Admiral Bayly discussed the blocking of Zeebrugge by sinking ships across the channel. 'Sir Lewis Bayly considered the scheme feasible, and wrote to me on the subject. I then suggested to the Admiralty that such an operation should be carried out. It was not considered practicable by the Admiralty at the time. . . . Some two years later I caused the question to be reconsidered after taking up the appointment of First Sea Lord at the Admiralty. . . . More than one plan was discussed between Admiral Bacon (commanding the Dover Patrol) and myself. . . . In September, 1917. . . . I gave directions to the Plans Division of the Naval Staff, of which Rear-Admiral Roger Keyes had recently become the head, that plans for blocking Zeebrugge were to be prepared. . . . The scheme was eventually approved by me in November, 1917, and the training of the storming party and selection of the blockships were taken in hand.'

But before this plan was carried out Admiral Keyes had succeeded Admiral Bacon at Dover, and Admiral Jellicoe had left the Admiralty. It will always be a matter of regret that this blocking of Zeebrugge was delayed until within seven months of Armistice. The brilliant manner in which the operation was carried out is proof enough that if Admiral Jellicoe and Admiral Bayly had been listened to at the beginning of the war, the story of the German submarines and the Dover Straits might have been very different.

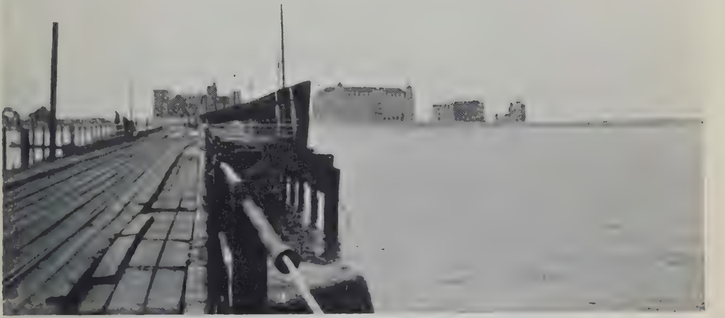
---

* 'The Grand Fleet, 1914–16,' p. 154.

The object of the enterprise was to block the entrances of Zeebrugge and Ostend, which, as bases of torpedo craft and submarines, had been since 1914 a perpetual menace to the Army communications to France and the trade and food supply of our country. From the Grand Fleet, the Harwich Force, the Dover Patrol, the three naval depots, and the Royal Marines a representative force was selected, and by April, 1918, everything was ready. The triangle of waterways Zeebrugge-Bruges-Ostend had its exits at Zeebrugge and Ostend. The intention was therefore to seal both of these exits, and the attack on the mole was a mere diversion to enable the blocking ships to get through without being sunk too soon by the enemy. The blowing up of the viaduct was to prevent the mole being reinforced from the land. As the story of Zeebrugge is now well known, it is the intention here to emphasize work on that memorable night of the Auxiliary Patrol craft.

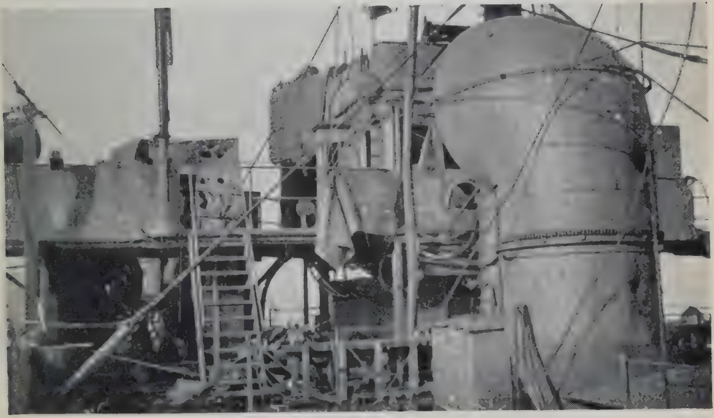
From Bruges, where the German submarines used to rest, load up with mines, and their officers indulged in wild orgies until they went to sea again, there is a canal six and a quarter miles long which joins the sea at Zeebrugge. This canal-mouth is protected by a horse-shoe break-water a mile and a quarter long. This breakwater is an exceptionally solid affair, with a high rampart and a very broad road. When I first sailed into this harbour in 1911 it had barely been finished, and its one solitary small steamer made it look larger still. The last time I went in was in June, 1922, when the accompanying photographs of it were taken. The Belgian workmen were still at work breaking up the blockships, and the harbour was still being dredged out.

The three hundred yards of open pile-work over which the viaduct existed were left for the purpose of scouring the harbour by the tide, and on the historic night this construction was blown up by means of one of our submarines. In order to appreciate the difficulty of the undertaking we have to remember that along the coast in 1918 were powerful German batteries of naval and other guns. At the extreme seaward end of the mole is a lighthouse, then comes a recess or extension, on which were mounted six 3½-inch guns, then three 6-inch guns where the mole becomes broad, and then more guns still as the breakwater extends shoreward. Sheds and aeroplane hangars were on the mole, and from a little west of where the mole became broad there extended in a south-eastern and southerly direction a net defence. This had been rendered necessary by the visitations of our coastal motor-boats. Thus, the blockships had first to break through this before they could get to the mouth of the Bruges Canal. On the northern side, where the designer of the mole had never intended shipping to come, the *Vindictive* and the *Daffodil* and *Iris* laid themselves alongside rather nearer the shore than where the defence-nets on the other side of the mole extended. One of the surprises of the night was, that though there was a powerful destroyer flotilla in Zeebrugge, only one of these craft emerged, and she was struck by a torpedo from coastal motor-boat No. 5. The rest of the



Zeebrugge Viaduct at Shore End

This shows where the British Submarine C3 blew up the connection with the Mole and shore.



Bridge of H.M.S. 'Vindictive'

After her return from Zeebrugge.

To face p. 276

craft had not steam up, but remained alongside the mole, and their crews assisted in defending the latter against *Vindictive's* storming party. There were about two dozen torpedo craft, and at least half as many submarines at Bruges to-night, and there they had to remain for some time.

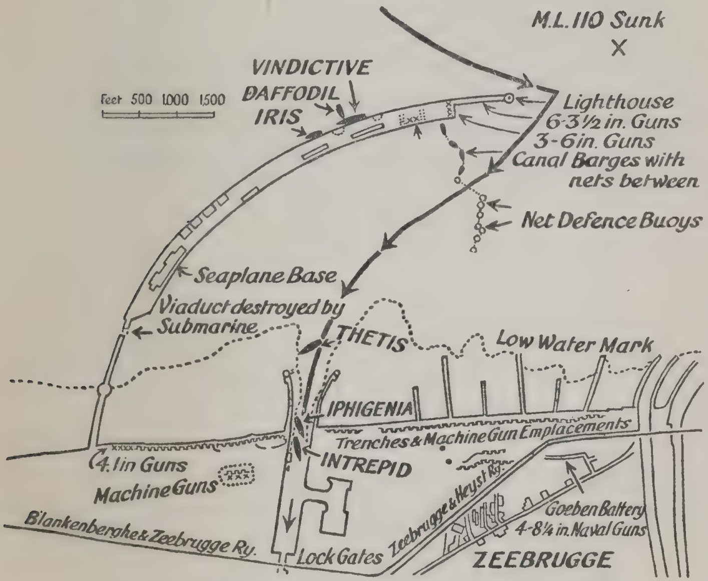

M.L. 110 Sunk
VINDICTIVE
DAFFODIL
IRIS
Feet 500 1,000 1,500
Lighthouse
6-3½ in. Guns
3-6 in. Guns
Canal Barges with nets between
Net Defence Buoys
Seaplane Base
Viaduct destroyed by Submarine
THETIS
Low Water Mark
IPHIGENIA
Trenches & Machine Gun Emplacements
INTREPID
4.1 in Guns
Machine Guns
Blankenberghe & Zeebrugge Ry.
Lock Gates
Zeebrugge & Heyst Ry.
Goeben Battery
4-8¼ in. Naval Guns
ZEEBRUGGE

FIG. 13.—PLAN OF ZEEBRUGGE HARBOUR.

To illustrate movements of blockships and M.L.'s on St. George's Day, 1918.

The preparation and training for this Zeebrugge-Ostend operation required months, and the concentration had to take place seven hours' distance away. The conditions requisite were the right state of tide, calm weather, the right direction of wind, no fog, but some haze. Thus it was not easy to have the entire combination of circumstances ready for the attempt. The first unsuccessful effort occurred on April 11, the second on April 13; but on April 22, the eve of St. George's Day, the expedition finally left in the afternoon for the Belgian coast. In this narrative all times are British summer time.

The force consisted of 82 officers and 1,698 men; the ships comprising 9 monitors, 8 light cruisers, 7 flotilla leaders, 44 destroyers and torpedo-boats, 61 M.L.'s, 24 C.M.B.'s, a picket-boat, 2 parent ships, 5 blocking ships, 2 submarines, 1 mine-sweeper, and 2 boarding vessels—166 craft, of which the Auxiliary Patrol vessels were the biggest unit. The two Liverpool ferry steamers, *Iris* and *Daffodil*, had been requisitioned as far back as February for their power and large carrying ability. They were to be used to push *Vindictive* alongside the mole, and to bring away all survivors in case *Vindictive* were sunk.

Now, to bring off the great operation successfully an effective smoke screen was regarded as essential. A factory was therefore established in Dover Dockyard, and the M.L.'s and C.M.B.'s were fitted with a special smoke apparatus. Without the work of the M.L.'s making their pall of smoke in the right localities at the right time the operation would have been impossible because of the powerful shore batteries. The assembling of the forces was at the Swin, at Dover, and at Dunkirk. The former is one of the deep channels of the Thames Estuary, and in this secluded quarter, away from inquisitive eyes, there were hid the *Vindictive*, *Iris*, and *Daffodil*, for attacking the mole; the *Thetis*, *Intrepid*, and *Iphigenia*, three obsolete cruisers for blocking the mouth of the Bruges Canal, and the two obsolete cruisers, *Sirius* and *Brilliant*, for blocking the mouth of Ostend Harbour.

M.L.'s making Smoke Screen

M.L. 110

Shelled and sunk off Zeebrugge Mole with the loss of her Captain and leading deckhand.

To face p. 278

At Dover and Dunkirk were destroyers, monitors, M.L.'s, C.M.B.'s, and so on. By five o'clock on the afternoon of April 22 the Swin force and the Dover force had joined and concentrated north of the Goodwins, and then proceeded in three mighty columns, the C.M.B.'s being towed. On arriving at position C, the southern end of the West Hinder Shoal, a pre-arranged signal was sent to the forces that the programme would be adhered to when one and a half miles short of position G, which was just south-west of the Thornton Ridge, and here Commodore Boyle's force, consisting of H.M.S. *Attentive* and other craft, joined. The C.M.B.'s and M.L.'s from this point proceeded in execution of their previous orders; they were already off the approaches to the enemy's coast.

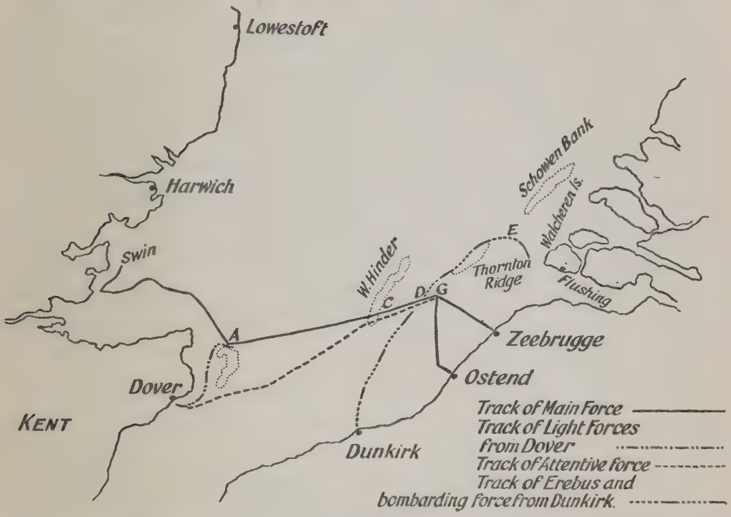

Lowestoft
Harwich
Swin
A
Dover
Kent
W. Hinder
C
D
G
E
Schowen Bank
Walcheren Is.
Thornton Ridge
Flushing
Zeebrugge
Ostend
Dunkirk
Track of Main Force
Track of Light Forces from Dover
Track of Attentive force
Track of Erebus and bombarding force from Dunkirk

Fig. 14.—Plan illustrating the Concentration against Zeebrugge and Ostend on St. George's Day, 1918.

It should be added that the route to the coast had been prepared by removing obstructions and by the placing of buoys. It was the work of Harwich destroyers and the *Attentive* to protect these navigational aids and the expedition itself. At 11.35 p.m. the monitors began to bombard Zeebrugge from position E at long range, an excellent smoke screen being made by the M.L.'s 448 and 538, who came under heavy fire from the shore batteries. At position G the blockships for Ostend separated, made for their objective, while the *Vindictive* made for the Zeebrugge mole, and emerging from the M.L.'s smoke screen was alongside the mole at one minute after midnight; then *Daffodil* pushed her bodily close to the stonework, *Iris* berthing just ahead. The storming party landed, did their work, and an hour later *Vindictive*, *Iris*, and *Daffodil* left the mole. At 12.20 a.m., H.M. Submarine C 3 blew herself up under the viaduct.

Now, with regard to the essential feature of the operation—that is, the blocking of the canal—the following is the story. At 11.40 p.m. the M.L.'s and other smoke-making craft began their screens off Zeebrugge and Ostend simultaneously. At 12.15 a.m. *Thetis*, the first of the blockships, passed the end of the mole by the lighthouse. Rockets from *Vindictive* were lighting up the mole, and then the *Thetis* made for the boom defence of nets and barges full speed, opening fire at the lighthouse and then at the end barge, which was sunk. Shelled by the guns on the pier extension, *Thetis* tore the nets with her, both her propellers fouled, but carried on almost to the canal mouth, by which time her shafts would revolve no longer. Three hundred yards short of the canal piers she grounded, after being already in a sinking

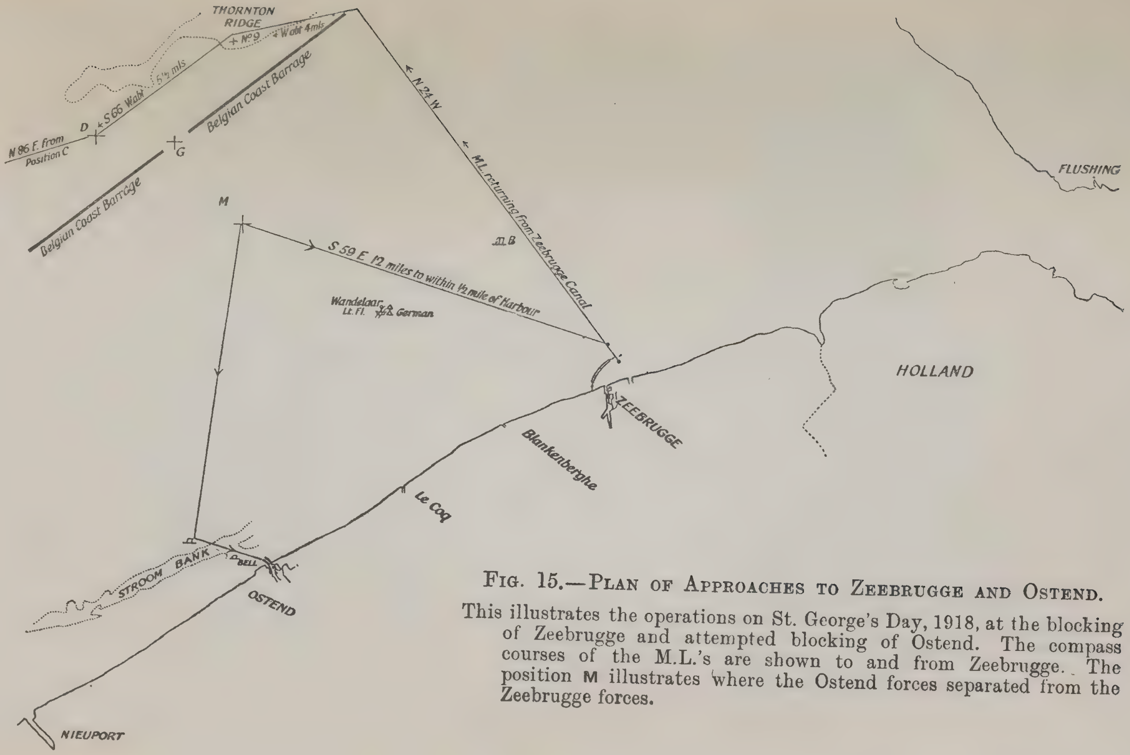

THORNTON RIDGE
+ No. 9
Wabt 4mls
5½ mls
S 66 Wabt
D
N 86 E. from Position C
G
Belgian Coast Barrage
Belgian Coast Barrage
M
N 24 W
M.L. returning from Zeebrugge Canal
B
S 59 E 12 miles to within ½ mile of Harbour
Wandelaar Lt. Fl.
German
FLUSHING
HOLLAND
ZEEBRUGGE
Blankenberghe
Le Coq
STROOM BANK
BELL
OSTEND
NIEUPORT

Fig. 15.—Plan of Approaches to Zeebrugge and Ostend.

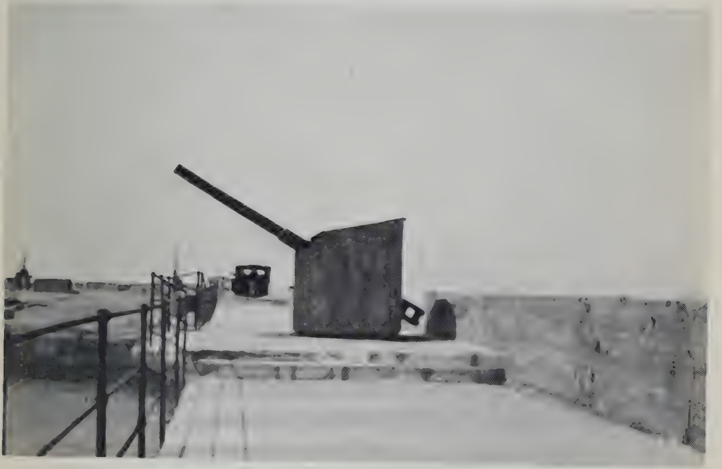
This illustrates the operations on St. George's Day, 1918, at the blocking of Zeebrugge and attempted blocking of Ostend. The compass courses of the M.L.'s are shown to and from Zeebrugge. The position M illustrates where the Ostend forces separated from the Zeebrugge forces.

condition from the hail of shells that greeted her. But *Thetis* had broken the boom defence for other craft to follow, and now having sunk herself on to the ground, the crew manned their one remaining cutter and abandoned the ship.

In attendance had come M.L. 526 (Lieutenant H. A. Littleton, R.N.V.R.), who followed through the hot fire into this narrow canal entrance and took aboard in ten minutes sixty-five officers and men from *Thetis* and *Intrepid*. For the latter had followed *Thetis* in, passed her, and in spite of the difficulties sank herself well up the canal a little short of the fishing basin on the eastern side. The *Intrepid's* people now took to a cutter; being picked up by M.L. 526, by a second cutter which actually pulled out of the harbour past the mole and was eventually picked up by the destroyer *Whirlwind*; and by a skiff which got to M.L. 282 (Lieutenant P. T. Dean, R.N.V.R.). It was M.L. 282 which also picked up some more of *Intrepid's* survivors from a Carley raft.

For the approach to Zeebrugge of this blockship party had been as follows: After the C.M.B.'s came M.L.'s 110 and 128. Their duty was to lay down two calcium lights so as to indicate the way into Zeebrugge off the lighthouse at the end of the mole. But actually these lights were not laid, inasmuch as M.L. 128 had a breakdown in her engines and M.L. 110, after remaining near *Vindictive* until the latter was secured to the mole, proceeded towards the entrance, and then was hit by three shells which completely disabled her, killing her captain (Lieutenant-Commander Young, R.N.V.R.) and a leading deckhand, wounding three others. Lieutenant G. Bowen, her second-in-command, therefore took

Lighthouse at Seaward End of Zeebrugge Mole Extension



Zeebrugge Mole
Showing guns mounted on the extension seaward of the Mole proper.

To face p. 282

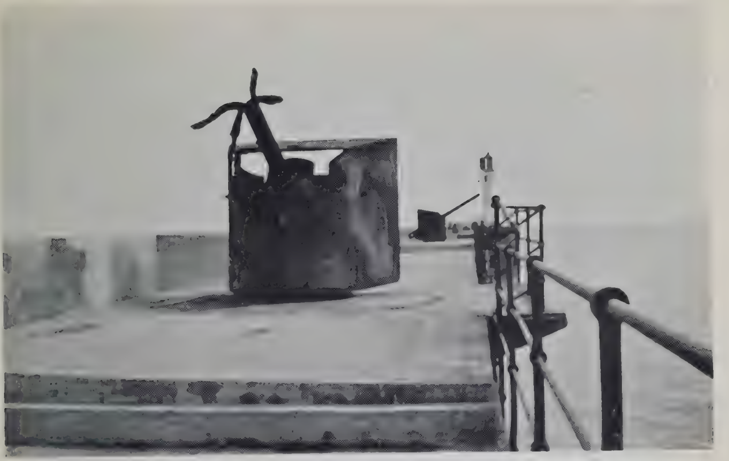
charge, was compelled to abandon her in the dinghy, after smashing holes in her bottom with an axe and by firing two trays of a Lewis gun so as to sink her, all secret papers being destroyed. These survivors were picked up by M.L. 308.

Eight M.L.'s and two destroyers made and maintained smoke screens off Zeebrugge, and as the wind shifted to the west the M.L.'s went closer inshore so as to give the attacking ships the maximum of protection. Smoke floats were laid also right under the battery at the end of the mole off the lighthouse. In so doing, M.L. 424 was hit soon after passing through the screen, and her captain (Lieutenant O. Robinson, R.N.V.R.), was killed together with two deckhands. Her second-in-command, Lieutenant J. W. Robinson, R.N.V.R., got the wounded and the rest of the survivors into the dinghy, set fire to the engine-room, and abandoned the M.L. in flames. They were presently picked up by M.L. 128 (Lieutenant R. Saunders, R.N.V.R.), whose engine defects had been now remedied.

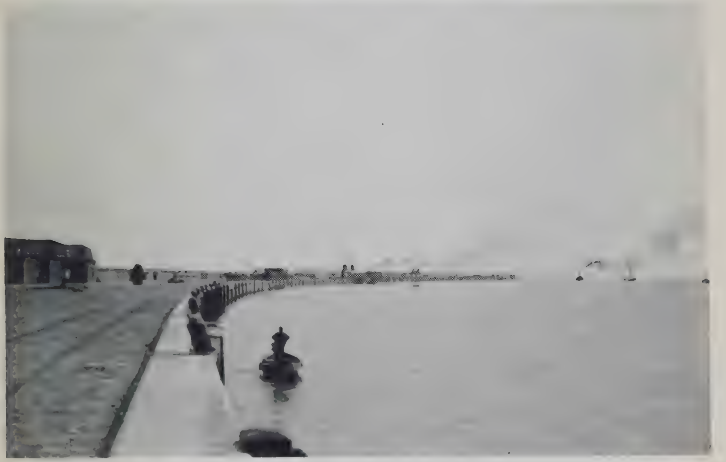
To cover the entry of the blockships the smoke screen had been extended towards the mole. Under considerable fire, but concealing herself in the smoke, M.L. 558 (Lieutenant-Commander L. S. Chappell, R.N.V.R.), after seeing *Vindictive* secured, proceeded through the smoke screen, then patrolled between her and the mole lighthouse, met the blockships coming in, and gave *Thetis* a rough bearing of the lighthouse; then screened *Iris.* She was struck by a shell, was damaged, but fortunately there were no casualties.

But to return to the entrance to Bruges canal; M.L. 526 had entered past the mole lighthouse on *Iphigenia's* starboard quarter and M.L. 282 on the latter's port quarter. M.L. 526 was picking up the men from *Thetis*, and then having rescued some also from the *Intrepid* and made certain that no others could be seen, managed to make her way out of Zeebrugge again, and eventually got back to Dover. It had been a brave and brilliant achievement to have brought about this rescue in such glaring dangers. As to M.L. 282, who had come under heavy fire from the machine-guns, it was entirely owing to her that the rest of *Intrepid's* crew were saved. But that was not all. The third blockship, *Iphigenia*, after passing through shrapnel and being lit up by searchlights on the shore end of the mole, found the entrance to the canal and sank herself astern of *Intrepid*. There remained only one cutter, and in this the ship's company left and were picked up by M.L. 282. On clearing the canal the problem for this gallant M.L. was now as difficult as ever the mind of man could conceive. Here was a small 80-feet wooden craft, almost top-heavy with all her rescued people, trying to get out through shells and machine-gun fire. It is entirely to the coolness and resource of Lieutenant Dean and his able seamanship as an experienced yachtsman that this amazing feat was ever accomplished. I have seen the official reports of this adventure, and he has been kind enough to describe to me the details verbally, and this is what happened :

Having cleared the canal under that dreadful fire, he ordered the coxs'n to make for the end of the mole by the lighthouse, but the steering gear was jammed, owing, as was presently discovered, to the corpse of a sailor lying on the steering wire. The M.L. was then steered by means of her engines, and it was only by keeping quite close under the mole, where the enemy's guns could not be sufficiently



Guns on Mole Extension
Looking seaward towards the lighthouse.



Zeebrugge Mole
Looking seaward towards lighthouse, showing sheds.

To face p. 284

depressed, that this craft managed to work her way out of this hell's gate into the open sea. Mind you, all this time she was hampered by towing the *Iphigenia's* cutter. After clearing the mole it became necessary, if the safety of the hundred men on board the M.L. was to be maintained, that this cutter should be cut adrift, so it had to be done. Lieutenant Dean now shaped a course for the prearranged retirement. His ship was a veritable shambles with dead and dying, his own second-in-command, Lieutenant J. C. Keith Wright, R.N.V.R., was dangerously wounded, two of his men were killed, Sub-Lieutenant C. H. Lloyd, R.N., of *Iphigenia* was mortally wounded, and in the fo'c'sle and after-cabin men were already in their final agonies. Riddled like a sieve, this M.L. held on and was presently able to get alongside the destroyer *Warwick*, in which Admiral Keyes was flying his flag.

After transferring wounded aboard her, Lieutenant Dean was able to carry on, and after calling at Deal Pier in connection with some hospital cases, reached Dover. One of the most gallant expeditions in naval history had been accomplished, and the M.L.'s of the Auxiliary Patrol had, in spite of every conceivable difficulty, covered themselves with eternal glory. A number of D.S.O.'s and D.S.C.'s were awarded, but no decoration was more fittingly bestowed than the Victoria Cross on Lieutenant Dean. It was a tribute to the officer himself and to the new Navy as well. If this ancillary service had never done anything else throughout the entire war, this affair at Zeebrugge, worthy to rank with the finest episodes in British naval history, would have justified its creation and existence. But it came as a fitting climax to all that had been done during the previous years.

The net result of this blocking of the canal was that it caused great inconvenience for the next few weeks to the enemy, and only the smallest submarines could use the channel, and by day only. The Bruges-Ostend canal was used therefore in a few instances, though it was not convenient, owing to the delay in getting through the locks. But German naval officers were agreed in considering the whole of this attack as being very gallant and dashing, and the Kaiser himself came down specially to visit the mole afterwards. The enemy were never able to shift the three blockships right clear of the channel. And it was not until the year 1921 that the last ship *Thetis*, under the supervision of Commodore Sir F. W. Young, R.N.R., was moved out of the way. The total casualties, St. George's Day, were 176 killed, 412 wounded, 49 missing, the destroyer *North Star*, and the two M.L.'s 424 and 110.

The attempt to block Ostend was gallant but unsuccessful. Having parted company at position G, the *Brilliant* and *Sirius* steered for the Stroombank Buoy and thence for Ostend piers, or where they were thought to be. But *Brilliant* grounded, and the officers and crew were taken off by Lieutenant R. Bourke, R.N.V.R., in M.L. 276, under the most difficult circumstances.

Sirius, after passing the Stroombank Buoy, was also unable to see anything of the land, for the wind had unfortunately changed to south-west, and the enemy had made a dense smoke screen. But the sound of machine-gun fire indicated the proximity of the shore. Having missed the entrance, *Sirius* also got aground. Now both of them had been under heavy fire since passing the Stroombank Buoy off Ostend, and they were badly hit. As *Sirius* could

M.L. 282
(Lieut.-Commander P. T. Dean, V.C., R.N.V.R.).

M.L.'s AT DUNKIRK
After the Zeebrugge expedition, celebrating the first award of the Victoria Cross to the R.N.V.R. Section of the Auxiliary Patrol.

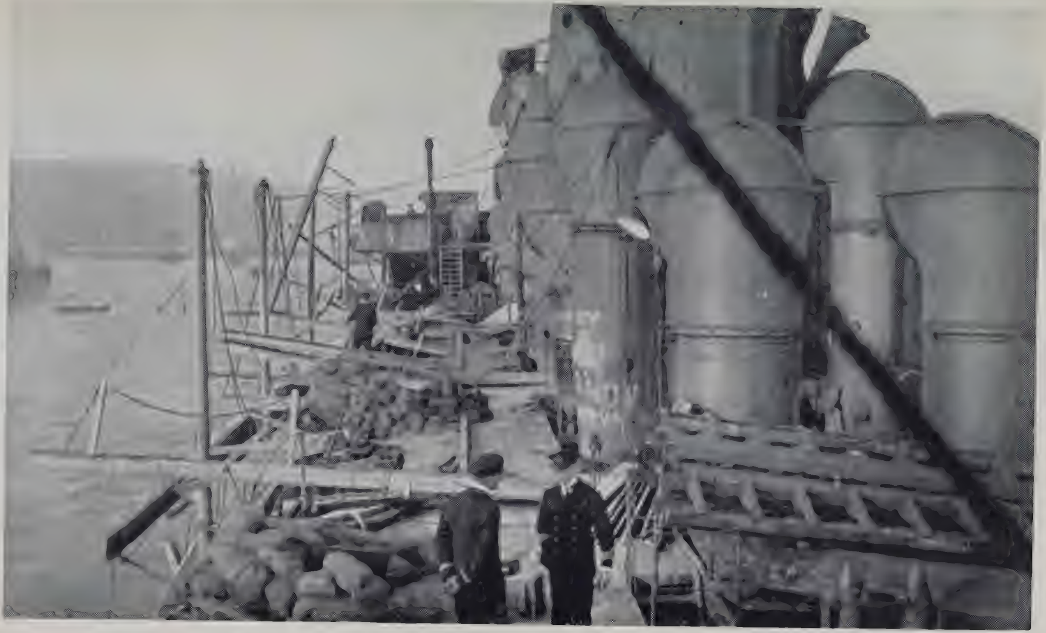
To face p. 286

not be moved, the explosive charges were fired and the bottom blown out of the ship. I had a look at these wrecks from the seaward in 1922, and it was sad to notice their bones just 2,400 yards to the eastward of the harbour entrance, which had been missed by so small a margin. The fact was that the enemy had been clever enough to shift the Stroombank Buoy from its proper position, therefore the two blockships were thrown out of their course.

But M.L. 283 (Lieutenant K. R. Hoare, D.S.C., R.N.V.R.) went alongside *Sirius* and took off practically all the crew as well as some of *Brilliant's* people, who had left the ship in a whaler and was sunk by machine-gun fire. But shortly after leaving *Sirius* the latter's captain found that some of his shipmates were missing, so on sighting one of our C.M.B.'s near the Stroombank Buoy he hailed her, went back to *Sirius*, but could find no sign of life, for the missing party had got away in a boat and pulled thirteen miles out to sea, being eventually picked up by the light cruiser *Attentive*. The rescue work by these two M.L.'s under fire of every kind of calibre was most gallant. Lieutenant Bourke in M.L. 276, after carrying out the western smoke screen, had closed the Stroombank Buoy at 12.10 a.m., and followed the two blockships towards Ostend Harbour entrance. When Lieutenant Bourke saw the two ships aground he ran alongside *Sirius*, but on hailing her could get no reply, and then ran alongside *Brilliant* four times, while the latter's starboard engine was still going astern, and took off the survivors. After leaving *Brilliant*, Lieutenant Bourke received an S.O.S. signal from M.L. 532 (Commander Ion Hamilton Benn, R.N.V.R.) asking him to stand by, and presently, under heavy fire, Lieutenant Bourke was able to take him in tow. The tow-rope parted three times, but at 6.30 a.m. they all reached Dunkirk.

M.L. 283 had arrived at the Stroombank Buoy at 11.15 p.m., and ten minutes later had begun flashing as ordered in a direction N. 20 E., from which the two Ostend blockships would come. At 12.10 a.m., when these arrived off the buoy, she followed on the port quarter of *Sirius*, and nineteen minutes later saw them both aground. By the time this M.L. had taken off about fifty men and those out of the whaler, and then some more from *Sirius*, she had seventy-five persons on board in addition to her own crew. Anyone who has handled an M.L. knows perfectly well that this craft was now almost top-heavy and rolled badly. By 1.10 a.m. she had got to the Stroombank Buoy, hailed the C.M.B., and then proceeded to Dunkirk.

As off Zeebrugge, so off Ostend the work of the other M.L.'s was most valuable. At 9.15 p.m., M.L. 532 and seventeen other M.L.'s left Dunkirk and reached the Stroombank Buoy at 11.10 p.m. The wind was excellent then, being from the north-west and thus blowing towards the shore. The smoke screen was accordingly made. The enemy at Ostend was distinctly alert, firing continuously, and keeping many searchlights at work all the time. The result was that the vicinity of the bell-buoy was not healthy for these 80 feet, thin, wooden motor craft. But an excellent smoke screen was put up by them, when just at the wrong time the wind backed from north-west to south-west, thus blowing off the land. This was at 11.40 p.m., and it was thus impossible to screen the channel from the bell-buoy to the piers. At 11.55 p.m. the two blockships were sighted approaching from the westward, and at 12.10 a.m. M.L.'s 532, 283, and 276 took station



Deck of H.M.S. 'Vindictive'
Showing the ladders used for landing on Zeebrugge Mole.

To face p. 288

astern. But the searchlights had picked up these five craft and a heavy and accurate fire ensued. In order to afford some protection, M.L. 532 made a smoke screen, and after *Brilliant* had got aground, this M.L. tried to close that blockship, but the latter had slewed round athwart her course, and the blinding smoke caused the wooden M.L. to collide and smash her bows against the blockship.

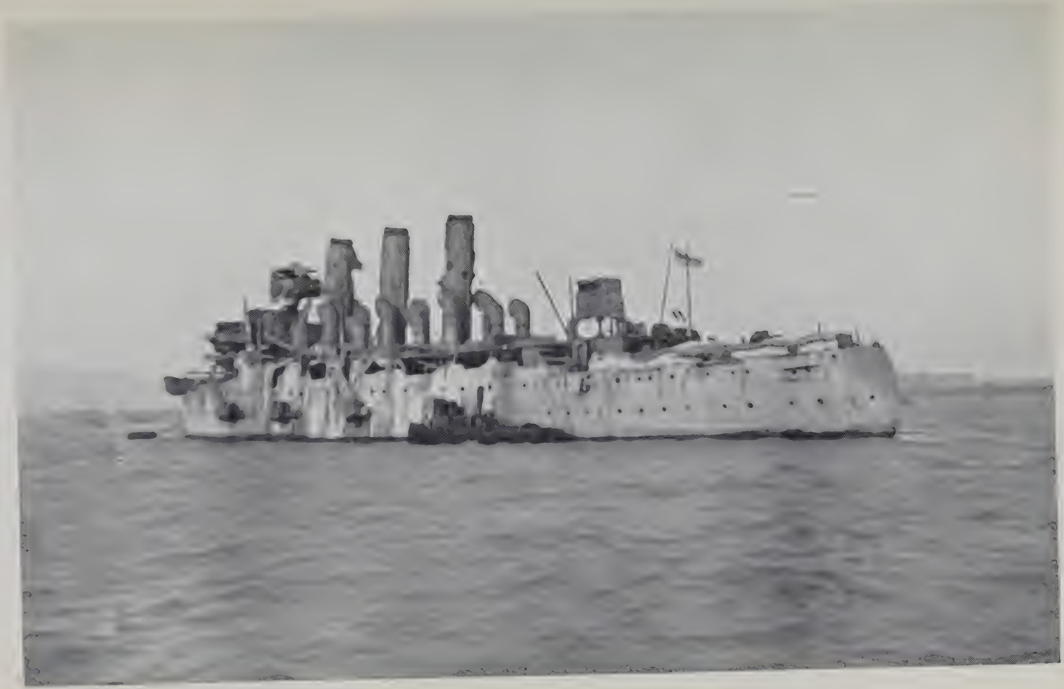
It is an amazing fact that the enemy had not a single patrol out off either Ostend or Zeebrugge this night. Perhaps this was as well, otherwise our smoke-making M.L.'s might have suffered at the hands of torpedo-boats. For the eastern and western sections off Ostend were smoke-screened by M.L.'s, six of them to each section. The central section was similarly screened by C.M.B.'s. A table had been worked out giving the positions where these screens were to be laid according to each direction of the wind. Supporting these small craft in case they had to fall back were eight destroyers to seaward.

The resultant gain from this Ostend expedition had been nil, owing to the fact that the two blockships had piled themselves up on the beach because of the Stroombank Buoy being out of position. But it was immediately resolved to make another effort, so *Vindictive* was at once made ready, this time as a blockship. Two hundred tons of cement were put into her, and by the night of May 9-10 the conditions of tide and weather and darkness were suitable. By this time the enemy had removed all the buoys off Ostend, so a special light buoy was laid to afford a satisfactory departure for *Vindictive* and smoke-screen craft. It had been intended that the obsolete *Sappho* should also immolate herself, but at the last minute she developed an engine-room defect, so *Vindictive* proceeded—this time from Dunkirk—without her.

Since St. George's Day a considerable number of German destroyers had joined those in Zeebrugge. Actually some of them were seen in the offing late on the evening of this May 9, so Admiral Keyes, in the destroyer *Warwick*, together with other destroyers, cruised as a covering force between Zeebrugge and Ostend. Offshore supports were in command of Commodore Lynes in *Faulknor*. The stage was now ready for the performance to begin, and the leading characters in the gallant drama were *Vindictive* and the motor craft.

Let it be at once stated that to the C.M.B.'s and M.L.'s is due the fact that *Vindictive* was able to be guided into the Ostend entrance between the piers. These small craft were again to cover themselves with the utmost distinction, and to show how dependent the older Navy had become on the new sisterhood. We are living too near these events properly to realize the fullness of their value; but in years to come, when all those who took part in these glorious night adventures have passed away, I believe that they will loom up as remarkable achievements for officers and men who were in the fighting service for such a brief period.

By 1.30 a.m. the advanced forces, consisting of C.M.B.'s and M.L.'s from Dunkirk, had been sent inshore to begin their smoke screens. There was no preliminary bombardment on this occasion: the enemy was to be taken, if possible, by surprise. At 1.43 a.m. Commodore Lynes made the signal to open fire, whereupon monitors, siege guns, and air squadrons gave the enemy their concentrated attention. Picture a dark, moonless night, with the low-lying sea fog such as you often get in the North Sea this month.



H.M.S. ‘Vindictive’

In Dover Harbour after her return from Zeebrugge and prior to being sent to block Ostend.

To face p. 290

Coming along past the boat marking the correct position of the Stroombank Buoy, the war-stained, Zeebrugge-scarred *Vindictive* steamed at 12 knots through the smoke screen, which was so excellent that at first she had some difficulty in finding the harbour. The wind was just to the west of north, with a clear sky and smooth sea; the conditions could hardly have been improved.

At 2 a.m. *Vindictive*, who had been escorted by one of the C.M.B.'s, gave the signal to her escort, who lit a million-candle flare by which *Vindictive* sighted the two piers on her port beam, then made for the entrance and came under a very heavy cross-fire from every kind of shore battery. Having given the order 'Hard-a-starboard,' her captain, Commander A. E. Godsal, R.N. (who had made the unsuccessful attempt in *Brilliant*), was never seen again, for a heavy shell burst. The ship was then grounded against the eastern pier, abandoned, and the sinking charges fired. And now came the work of the splendid motor launches. Lieutenant G. H. Drummond, R.N.V.R., brought his M.L. 254 alongside *Vindictive's* inshore side, and embarked Lieutenant Victor Crutchley, R.N. (who had taken over command of *Vindictive* after Commander Godsal's death). This M.L. also took off Engineer Lieutenant-Commander Bury and thirty-seven men. But already the M.L. herself was in a bad way, for her second-in-command, Lieutenant Gordon Ross, R.N.V.R., and a deckhand had been killed and the coxswain wounded. Lieutenant Drummond himself had been wounded in three places, but he took his ship out of harbour stern first, followed the whole way by machine-gun fire.

Having at last finally cleared the entrance and got away seaward, the M.L. was found to be so damaged that her foc'sle was flooded and she was down by the head. The pump was set going, buckets were employed, and all spare hands placed aft to weight her; but the water still gained. Making S.O.S. continually to seaward on her flashing lamp, Admiral Keyes' destroyer *Warwick* observed this signal at 3.15 a.m., and ordered the rest of the destroyer division to close her. But the little craft was already in a sinking condition, with most of her own crew and many of *Vindictive's* wounded. These injured men were put aboard *Warwick*, and now the dawn revealed the fact that M.L. 254 was too badly damaged to allow of her being towed. She was settling down rapidly, so Admiral Keyes ordered her to be destroyed; and then the division withdrew at 25 knots from the enemy's threshold. The work had been accomplished.

As for Lieutenant R. Bourke's M.L. 276, she had followed *Vindictive* in engaging both piers with her machine-guns, and then went alongside the blockship after Drummond's craft had shoved off with his party of survivors. Now there still remained Lieutenant Sir John M. Alleyne, Bt., D.S.C., R.N., who had been serving in the monitor *Lord Clive*. By reason of his experience and knowledge of the Belgian coast and currents, he had gone in the *Vindictive* as navigator. But just as the ship had entered Ostend he was knocked out and severely wounded in the stomach. Under very heavy fire, after much search, Lieutenant Bourke and Sub-Lieutenant Petrie managed to find and embark Lieutenant Alleyne and two ratings (who also were badly wounded) in the water clinging to a capsized skiff. These, the last of the survivors, were got on board M.L. 276, but she was by no means in a perfect condition. For she had been hit in fifty-five places, and three of her crew

Group of M.L. Officers

Employed off the Belgian coast in 1918. Lieut.-Commander P. T. Dean, V.C., R.N.V.R., of M.L. 282, is fifth from the left in the front row.

To face p. 292

were either killed or wounded. But she managed to clear out of the harbour, made to the westward, was seen by the monitor *Prince Eugene*, and taken in tow.

In addition to these incidents the C.M.B.'s had torpedoed the piers and engaged with machine-guns the enemy's similar weapons. One of them when smoke-screening the shore batteries came across a German torpedo-boat close inshore, who switched on her searchlight and opened fire. But the C.M.B. (No. 22) then attacked with her Lewis guns and peppered the enemy so effectively that the torpedo-boat was driven away from the entrance and prevented from interfering with the blocking operations. It is a strange fact that although several other torpedo-boats belonging to the enemy were lying close under the shore batteries, they never ventured out.

Thus, at the second attempt, Ostend had been blocked, though not completely, for the enemy was able to haul *Vindictive* nearer still to the eastern pier, where she still was as late as the summer of 1922. The total casualties for so daring an adventure on the part of our forces—especially so recently after St. George's Day—were remarkably small. Only two officers and six men were actually killed; five officers and twenty-five men wounded; and two officers and nine men missing. It was the smoke screens by the small craft that had prevented heavy losses. Only one ship was sunk, M.L. 254, though on her way home *Warwick* struck a mine which broke her back and destroyed her stern. She was, however, taken in tow and reached Dover that afternoon. So ended another fine exploit; so, once again, the new Navy sustained and added to the glorious traditions of our great sea service. And thus once more the Victoria Cross came to the R.N.V.R.

CHAPTER XIX

THE LAST PHASE

By the way submarines continued to get through the Belgian coast barrage, it was clear that this was, in the latter part of the war, no dependable deterrent. As the result of much industry, the Germans were able to get these craft past the blockships in the Bruges Canal entrance before long, but the Dover deep minefield, the flares, and the incessant Auxiliary Patrol ships, were a most serious obstruction. Occasionally the fast submarines on the surface at night, having begun to suspect the presence of mines below, were able to use their speed to advantage and slip past at full speed between the slow-going drifters spaced a long way apart.

The 2nd of May was a satisfactory occasion for the Dover Patrol, for on that day both UB 31 and UC 78 were driven to their deaths among the mines by the drifters. And from the middle of May half a dozen submarine-chasers from the U.S.A. reached Portsmouth, and, after four days' rest, proceeded to Portland, and thus strengthened our auxiliary craft. They had come up from the Azores under their own power, and were the first chasers to operate in European waters. They at once began to do hydrophone patrol with great zeal, drifting noiselessly, with listeners on watch for enemy submarines. They were afterwards based at Plymouth, Queenstown, Gibraltar, and the Adriatic.

But now there came the chance of the steam yachts. It was well deserved, for few craft in the war ever received so much buffeting about by weather and were less suited to sustain it. As to their engines, it is a great tribute to their builders and the engineering staff aboard the yachts themselves that the machinery remained in such an efficient state. Never in their lives had these craft done so much continuous steaming month by month, year by year. Long, awkward creatures to handle, as many of them were, they were nevertheless useful as patrols, but inferior to the fishing vessels.

On May 21 the American-owned, though British-built, steam yacht *Christabel* (300 tons, Thames measurement), which had come over after the U.S.A. joined in the war, was helping to escort a north-bound convoy across the Bay of Biscay when UB 58 was sighted and attacked by her with depth charges. The yacht did not sink the submarine, but the latter was so badly damaged that, three days later, she had to go into Santander, where she was interned. However, on May 26, the Auxiliary Patrol steam yacht *Lorna* (Lieutenant C. L. Tottenham, R.N.R.), of 484 tons (Thames measurement), was to have her reward after winters and summers of routine. It was just before ten o'clock at night, and she was patrolling in Lyme Bay (west of Portland), when she sighted a periscope on the port bow. She at once made for the German, rammed her, then dropped a depth charge, and then a second. Whilst circling to pass over the spot again she observed four objects in the water, who were found to be the sole survivors from UB 74, shouting 'Kamerad!' and 'Help!' In their midst was also seen a disturbance caused by the rush of escaping air from the sunken submarine. Before the survivors could be picked up three had died, and the remaining one was covered with thick oil from the submarine, and he died three hours later. A German bluejacket's cap with *Unterseeboots* on it was also picked up. Lieutenant Tottenham was rewarded with a D.S.O., and Engineer-Lieutenant E. Jones, R.N.R., was given a D.S.C.

On the last day of May UC 49 was sunk in the North Sea by means of trawlers, drifters, an M.L., and other craft dropping depth charges. But now comes the institution of the northern barrage, which was to close the northern exit to the North Sea, as the Folkestone-Gris-nez barrage was closing the southern exit. The creation of this enormous minefield, extending from the Orkneys to Bergen neighbourhood, a distance of 240 miles, was one of the biggest achievements of the war, and was the result of Anglo-American co-operation. Reading from west to east, this enormous area was divided into areas B, A, and C. The middle area was assigned to the Americans, laying their own mines. The other two areas consisted of British and American mines. The general direction of this mine barrage was in the hands of the British Navy. The decision to create this immense barrage was made at an Allied Conference in September, 1917. There were about 80,000 mines laid, the first of which began to be deposited in March, 1918, and at the end of the following month the Admiralty issued a notice to mariners that, in view of the unrestricted warfare carried out by Germany by means of mines and submarines, certain areas would, from May 15, be dangerous to shipping—that is to say, Areas A and B. Actually not until Armistice Day was Area B so announced.

The result of this northern barrage, immense as it was in plan and difficult in carrying out, was that by July it was learnt that two German submarines had been damaged. As far back as October, 1916, the Norwegian Government had prohibited foreign submarines in their waters ; then in August, 1918, certain lights along the Norwegian coast were extinguished ; and finally, at the end of October, Norway announced that the waters at the eastern end of this barrage would be closed by mines. Thus the enemy's loophole of using territorial waters, as he had off the Dutch coast, was now denied him. This enormous northern barrage was not quite completed, for the Armistice arrived just before the last few thousand mines could be laid. But it was the means of destroying half a dozen submarines. Thus at last, at the very end of the long war, there was an effective barrage, which made the North Sea to the enemy submarines a mere lake, and restricted their activities so closely that, had the war continued much longer, the submarine campaign, with our improving listening devices and unlimited depth charges, would have been brought to a standstill very soon. Actually Armistice arrived when the submarines were at their last gasp, when their crews had touched something very near to zero in efficiency and keenness, but at a time when our anti-submarine ability was never so high.

By this last summer there was no line of demarcation between the operations of the Flanders and North Sea submarine flotillas—that is to say, Flamborough Head was no longer a dividing line. Our new patrol craft were being launched against them, and the new Admiralty-built drifters were designed on exactly the same lines as the best fishing drifters, but with bunker space to carry twenty extra tons of coal and a tank to hold eight tons of water. These were very useful additions to the ships. In the Dover area the drifters continued to have their long pent-up revenge in the final months of the war, and amply repaid the months of unsuccessful effort during that period when they relied on their nets. Thus, on the evening of July 10, the drifter *Kessingland* observed a moving track of oil and bubbles. She followed this up, dropped depth charges, so also did the drifter *Golden Gain*, causing heavy explosions and the loss of UC 77, but the award of £1,000 to be divided between these two and three other drifters. The submarine's captain was another of those recently recruited officers to the German submarine service, and was a mere novice against our highly efficient fishing craft. UC 64 had been sunk in the Dover barrage on June 20, at four in the morning, owing to the vigilance of the seven drifters *Ocean Roamer*, *Bien Venue*, *Kessingland*, *Loyal Friend*, *Herring Seeker*, *Harvest Hope*, *County of Nairn*, who divided £1,000 between them. Thus the toll in this southern barrage was mounting up in a manner that must have been perfectly alarming to the German Naval Staff.

On the other hand, his submarines this July were making a very powerful concentration in the North Channel. The object was to sink ships carrying troops to England for the American Army in France. No fewer than seven submarines were operating at one time in this neighbourhood, and they managed to sink the mammoth 32,234-ton liner *Justicia*, which Scheer says was taken by the submarine officers for the ex-German *Vaterland*.

On the 27th of July, off the Yorkshire coast, UB 107 was destroyed by the armed trawler *Calvia*

(Lieutenant W. S. Croucher, R.N.R.). The news of her presence was passed to the trawler by an M.L. compelled to run for shelter owing to stress of weather. About 8.30 that evening *Calvia* saw a submarine break surface, made for her and caused her to dive, and then both this trawler and the trawlers *Warter Priory* and *Commander Nasmith* so thoroughly depth-charged the enemy that only the headless body of a German in naval uniform was ever found.

By July the submarines were able to pass either side of our three blockships from about three hours before to three hours after high water, and continual dredging went on. Thus the raid had done something more than create a feeling of nervousness with the enemy. By this time the enemy submarines had begun to guess that the Dover flares were for the purpose of making these craft dive on to mines, but the position and extent of these hidden dangers were still a secret. To assist in their navigation home there existed a cable from the vicinity of Wenduyne Church to the north end of Thornton Ridge, by which means German craft could proceed in perfect confidence during thick weather. After the war this method was publicly tried in Portsmouth and other harbours.

On August 8, at the western end of the English Channel, the destroyer *Opossum* was operating with some M.L.'s to locate a submarine, and after being located by hydrophone that afternoon, the enemy broke surface for a few seconds, but dived when she found herself near to an M.L. Three M.L.'s and *Opossum* then depth-charged her, and next day thirty-seven more depth charges were dropped over the spot which had been buoyed where considerable quantities of thick brown oil and air bubbles had been seen to come up. The wreck was discovered by sweeping operations, more depth charges were dropped, and an electric light bulb made in Vienna floated to the surface. There followed a strong rush of air and a smell of oil. Thus the excellent combination of destroyers, M.L.'s, hydrophones, and depth charges had brought about the required effect.

Off the north-east English coast on August 13 the trawler *John Gillman*, just after midday, sighted the periscope of a submarine. Now, the mirror of this periscope was so turned on the convoy which was being followed by the enemy that *John Gillman's* approach was not observed. The trawler struck her with the hull, then depth-charged her and buoyed the spot. Later on the armed yacht *Miranda* also dropped some of these bombs, but soon after two that afternoon the trawlers *John Brooker* and *Viola*, whilst listening on their hydrophones, saw her rise to the surface, shelled her, and then proceeded to drop depth charges, as also another trawler *Florio*, and presently too the trawler *Sparrow*. These were all patrol craft from the Tyne, and they had the satisfaction four days later of learning from divers that close to the position where the buoy had been dropped there was found the wreck of UB 30. On the 29th of the same month UB 109 homeward-bound for Zeebrugge was destroyed in mines off Folkestone. This submarine had been at Bruges on the night of our Zeebrugge raid, and remained there until she managed to get past the blockships on July 27, when she left Zeebrugge. After lying on the bottom of the sea all day to await darkness, she passed through Dover Straits by night with the west-going stream, was sighted by the drifters *Monada*, *Scania*, and *Coleus*,

Newly-Built ‘Mersey’ Class Trawlers
Getting ready for sea in the fitting-out basin, Hull.

To face p. 300

who promptly depth-charged her. She was then compelled to dive in the middle of the minefield, and had a miraculous escape from being blown up. She then carried on down to the Azores, and was on her way back through the English Channel, about two o'clock in the early morning of August 29, when she was made to submerge owing to the presence of a patrol craft, and then came the explosion, the survivors being picked up by our trawler *St. Germain.* On September 16 UB 103 was driven on to the Folkestone-Gris-nez minefield by the drifters *Young Crow*, *Calceolaria*, *East Holme*, *East Anglia*, *Fertility*, and *Pleasants*, who divided another £1,000 between them. The loss of this submarine was a very useful bit of work, for her captain was one of the most successful officers, having sunk nearly eighty merchant ships. A month previously she had, on her outward journey, been depth-charged by the armed yacht *James Fletcher* and the drifter *J. Burn* in this district at eight o'clock in the evening, but now she was finally destroyed. This was the last submarine to be sunk in the Dover Straits before the end of the war. Since the Folkestone-Gris-nez mine barrage began to be laid no fewer than thirteen submarines had been accounted for in this area. And with the sinking of the half-dozen submarines in the northern barrage during the short period that that area too was efficient, immediately prior to the Armistice, there was ample proof that the days of U-boat menace, which had caused us such grave anxiety, were now passed and done with. It had been a long fight, but we had everything to learn. Typical of the British character, we had been slow in getting a move on, laggard in adapting ourselves to the new conditions, but, having once made up our minds, there had been no going back. It is undeniable that the blockade of the Grand Fleet, the anti-submarine activities of the Auxiliary Patrol and other craft, the vast mine-sweeping operations of our trawlers, paddlers, gunboats, M.L.'s, and other vessels kept down to controllable limits the tremendous enemy efforts to paralyze the movements of our shipping, both men-of-war and mercantile. These statements will bear the test of future historical scrutiny, and the value of the ancillary Navy to the nation and allied cause can hardly be exaggerated.

In the Mediterranean the Auxiliary Patrol were kept busy right to the very end. In connection with the advance of the army in Palestine and the establishment of a base at Haifa, five trawlers and three M.L.'s arrived there at the end of September to clear a channel and anchorage, accounting for actually fifty-seven mines in the bay and vicinity. Now, most of these mines were only eight feet below the surface. The M.L.'s drew about five feet of water, the trawlers about thirteen! The conclusion is obvious: the M.L.'s were again indispensable. And having finished their work at Haifa they were required at Beirut.

But it was not unfitting that to the M.L.'s, the newest portion of the new Navy, should fall the privilege of helping in the sinking of the last German submarine to be destroyed before Armistice. Somehow this incident rounds off and gives a final touch to the great story of the Auxiliary Patrol. On the night of November 8-9, off Almina Point again (see Chapter XVII.), M.L. 155 sighted U 34 in the Gibraltar area and gave chase. Just after midnight M.L. 373 fired a Very's light, and then M.L. 155 caught sight of the submarine submerging, so dropped depth charges. Ten minutes later the Q-ship *Privet* also sighted her and fired a 4-inch shell which hit her in the conning tower, and later three shells from her 12-pounder, and then dropped depth charges. By half-past twelve the submarine was destroyed. The end of the great menace had been reached, for on the 11th came the cessation of hostilities.

On the evacuation of the Adriatic the Germans destroyed at Pola or Cattaro ten submarines of the U and UC classes, but some others got away north to Germany. On the Continent history was now being made at a rapid pace. On October 14, in co-operation with the advance of the British, Belgian, and French armies, our Dover monitors were bombarding heavily certain objectives between Ostend and Nieuport, and destroyers, M.L.'s,paddlers, and other craft left Dunkirk and proceeded along the line of the old Belgian coast net barrage to make the enemy fear a landing at Zeebrugge. On the 17th Admiral Keyes landed at Ostend, but afterwards withdrew his ships lest their presence might lead to the bombardment of Ostend and the loss of Belgian lives, but four M.L.'s were left off the port as an inshore patrol. The same evening the King and Queen of the Belgians visited Ostend in one of our destroyers, for this was the day when that port was retaken by the Allies after just four years in the hands of the enemy. On the following day the mine-sweepers were able to clear up the minefield off Ostend, but the enemy's battery at Knocke caused them to withdraw. On the 19th the paddlers got to work and swept up a score of mines, and M.L.'s swept inside Zeebrugge Mole. For already the Knocke battery had been blown up by the retreating Germans. The paddler *Plumpton*, however, struck a mine and had to be beached ; on the 20th the small monitor M. 21 struck a mine off Ostend and sank ; and on the 21st M.L. 561 hit another mine off that port, killing her commanding officer ; but in a few days' time the area off here had been cleared by the sweepers, and at last Ostend could be entered freely past the wreck of the *Vindictive*, upon which, and sunken German craft, salvage work now commenced.

On evacuating Flanders the Germans had destroyed four of their submarines ; and on October 2 all her submarines were finally recalled from the Atlantic for the big submarine offensive in the North Sea, already referred to, that was to have combined with the operations of the High Seas Fleet in the final big effort. But as a counter-move to this submarine concentration drifters and trawlers were summoned from the west of England to the Firth of Forth. One who was at Scapa Flow at the time has given me the story of the loss of UB 11. It was a final attempt, and a very desperate but equally gallant one, to get inside the boom and attack the Grand Fleet. It occurred on the night of October 28, but she was destroyed before she could do any harm.

The armistice with Turkey having been signed on October 3, the clearance of the Dardanelles minefield, which had defied us throughout the war, began on November 1 ; and here the trawlers, the twin screw sweepers, drifters, and M.L.'s swept a passage for the fleet to enter, hundreds of mines being thus destroyed. The final act in the drama began when Germany signed the Armistice on November 11, and U 157 was interned in Norway ; and then on November 19 the first of the long list of German submarines began to be surrendered, and Harwich harbour was to present an amazing sight with the long lines of these forlorn craft that had done so much harm to our shipping. In a war where every man and woman contributed so much to the great cause it is possible to claim too much for any particular service; but in the sinking of enemy submarines the greatest number by far were the act of the yachts, trawlers, drifters, M.L.'s and mines. And we know from Commander Groos, the German official naval historian of the war, that his country lost altogether 203 of her submarines, most of which were destroyed in the North Sea and off Ireland.

There was other work still to be done, for the great mine clearance in the various fields had to be undertaken before merchant shipping could proceed on its lawful occasions everywhere; but our story ends with the defeat of the enemy. On the signing of Armistice there were about 3,800 yachts, patrol gunboats, whalers, mine-sweepers, drifters, M.L.'s, and other motor craft, with about 3,000 officers, or 39,000 ranks and rating in the Trawler Section alone, of whom about a quarter were employed in mine-sweeping. The losses up to this date in the Auxiliary Patrol were 234 officers and 2,070 men—total, 2,304. The losses of Auxiliary Patrol ships amounted to 445, of which the greatest number were the 260 trawlers and 125 drifters. Of the 11,000 mines which the enemy laid off our home coasts, there were 1,360 groups, and all but one of these groups had been discovered prior to Armistice. Ninety per cent. of these mines had been laid by the subtle submarines, and the highest credit is due to the efficiency of our mine-sweeping service in having been able to locate them.

Thus our long story of the new Navy reaches its end. It was a unique service. It came into being quickly, and it has long since been disbanded; but it will ever remain a very wonderful experiment, which created an original tradition in the long story of sea service. After the end of the war, when Admiral Beatty visited Grimsby, he thanked the fishermen for their fine work during the war, and remarked to the audience that they had heard of the 'silent Navy, but of that silent force which maintained the command of the sea of mists, the most silent portion of it was represented by the mine-sweepers.' That is true enough, and these men have long since been back catching fish instead of mines and submarines, though the same excellent personnel is there in case a national emergency should arise. How deeply the Admiralty appreciated the work of the Auxiliary Patrol may be read in the following message which they sent to this service just after hostilities had ceased, and with this we may well close our account:

'Before the dispersal of the Auxiliary Patrol Service the Board of Admiralty desire to record their appreciation of the admirable work performed during the war by the yachts, whalers, trawlers, drifters, motor launches, and motor-boats belonging to it. They thank the naval, Mercantile Marine, and other officers who joined this service—the yachtsmen, skippers, mates, deckhands, engine-room and other ratings, both men and boys, who have helped. with marked success, to keep the sea against the submarine attacks of the enemy.

'The Auxiliary Patrol Service, from the commencement of the war, was charged with the sweeping of mines, and in this hazardous duty has saved many a ship, and has earned the gratitude of His Majesty's Navy and of the Mercantile Marine. By escort and convoy also it has brought safely to port hundreds of ships whose cargoes were of supreme value and concern to the British Empire and our Allies. When ships were mined, torpedoed, or wrecked, the Auxiliary Patrol vessels have been untiring in their efforts to rescue the crews, and their seamanship, pluck, and determination have resulted in the salving of many badly damaged ships. On the appearance or report of an enemy submarine it fell to the Auxiliary Patrol to hunt her by every available method, some of these involving the correct use of highly technical apparatus, which the crews learnt to handle with the greatest efficiency.

‘In all their varied work round the coasts of the United Kingdom, in the North Atlantic, on the African coast, in all parts of the Mediterranean, and in Egyptian waters, the members of the Auxiliary Patrol Service have shown an adaptability and readiness both for hazardous deeds and for steady, arduous effort. This new Navy of small craft, created by the special needs of the war, has proved the vitality of the British instinct for the sea and of the adventurous spirit of the “Scowre-Sea Navy” in the days of the old sailing ships, and has every reason to be proud of its share in bringing the war to a victorious conclusion.

‘The good wishes of the Board of Admiralty and the Royal Navy will follow the armed yachts, trawlers, drifters, and motor-boats after they have hauled down the colours they flew as His Majesty’s Auxiliary Patrol vessels. Many of the vessels at home and abroad have still before them some months of important service, and my lords are confident that those whose duties stand in the way of their early demobilization will continue to carry out their work with the same readiness and devotion.’

APPENDICES

APPENDIX I

NOTE ON THE LAYING OF THE TYNE AND HUMBER MINEFIELDS

From the official German Naval History it is clear that during August 21 and 22, 1914, the light cruisers *Rostock* and *Strassburg* with a torpedo-boat flotilla made a sweep towards the Dogger Bank and thus sank eight of our fishing trawlers.

The object of this German sweep to the Dogger Bank was as follows: They hoped to find a large number of British trawlers, which generally worked in fleets of thirty to fifty boats, and perhaps some protecting war vessels. The date of this sweep was to depend on the weather. The plan was to send two light cruisers and one torpedo boat flotilla to be off the south-west corner of Dogger Bank at daybreak and thence sweep north in search of British fishing vessels. The crews of any British vessels were to be transferred to the German warships. Each German cruiser and destroyer on this occasion carried a German trawler skipper well acquainted with the Dogger Bank fishing, and capable of distinguishing British fishing craft with certainty. Therefore, on August 21 *Rostock* and *Strassburg* and the Sixth Torpedo Boat Flotilla put to sea. At midnight (G.M.T.) August 21-22 the first British trawler, *Julian* of Boston, was sighted by Torpedo Boat V. 160, who sank her and took the crew aboard. At dawn the sweep of the Dogger Bank was begun on a north-east course. *Strassburg* sank the Grimsby trawler *Capricornus.* After proceeding two and a half hours north-east, the sweep was abandoned, as no more trawlers were seen. But this expedition was supported by the *Hamburg* and U 5, U 16, and U 17, who left Heligoland at 1 p.m. G.M.T. August 21 and took up positions 120 miles from Heligoland, *Hamburg* being in about Lat. 54.25 N., Long. 4.3 E. *Hamburg* destroyed by shell the trawlers *Skirbeck*, *Wigtoft*, and *Walrus.* Meantime, during the return voyage, Torpedo Boat V. 158 sank two more trawlers, viz., *Flavian* and *Indian* of Boston, 100 miles from Heligoland and 60 miles north of Terschelling respectively. T.B.D. sank also G.Y. 750 at 8.25 a.m. The German Official Naval History states that *Flavian* and *Indian* were employed on military duties. This is not true. The cruisers and destroyers and prisoners reached Wilhelmshaven on August 22. There was also an eighth trawler thus lost named the *Marnay.*

This sweep seems to have been actually a preliminary reconnaissance for the mine-laying expedition of a few days later, when the Tyne and Humber fields were laid. From the same official source the following additional facts are obtained. The times given are all Greenwich Mean Time.

TYNE MINEFIELD.

On August 25 at 8 p.m., *Albatross* with *Stuttgart* and destroyers left Heligoland. On the morning of August 25 they met several British fishing vessels, and a torpedo-boat sank the fishing trawler *Rhine* and V. 155 sank the *Harrier*. At 3 p.m., V. 155 sank the *Lobelia*; at 6 p.m. she sank *Valiant*, and towards evening V. 154 sank *Mersey*. All these were Grimsby trawlers and their crews were taken prisoners. At 11.40 p.m. G.M.T. on August 20 the ships were surrounded by a thick, low-lying fog. At 12.30 a.m. G.M.T. August 26 the *Albatross* began to lay her mines in ten-minute zigzags. The position of the minefield had to be calculated by dead reckoning. [They were actually wrong in their reckoning.] They thought they had laid the centre of the minefield about five miles from the mouth of the Tyne, with the object that 'any British war vessels approaching from the south, north, or east would be obliged to run into it.' The enemy assumed it would entrap colliers, tankers, and ammunition vessels from Tyne. At 4 a.m. August 26, on the return journey, V. 154 sank the Grimsby trawler *Seti*.

HUMBER MINEFIELD.

The object of this was to close the main shipping route from Outer Dowsing to Flamborough. The force consisted of *Nautilus* escorted by *Mainz* and destroyers, and left Ems at 5 a.m. G.M.T. August 25. Misty weather was encountered off the Yorkshire coast. The first leg of the minefield was laid about 11 p.m. August 25 and the second leg at 11.30 p.m. August 25. At 1.50 a.m. August 26 they began to return. They sank one trawler at 8 p.m. on August 25 and six more on the way home.

APPENDIX II

NOTE ON THE MOTOR-BOATS SENT TO THE FRENCH AND BELGIAN WATERWAYS

In November, 1914, the question of employing armed motor-boats to work with our Armies in France was considered, and it was decided to send a small flotilla of the craft belonging to the Royal Naval Motor-Boat Reserve. The Nieuport locks had already been damaged, though the boats would be able to pass through into the canal. It was decided to send the three Thornycroft-built craft (originally intended for the Turkish Government) plus four small motor-boat tenders. The former were the *Penelope*, *Mary Rose*, and *Dorothea*, but there was added the motor-yacht *California*. Each of these four carried at least one 3-pounder and a Maxim gun.

About the middle of December these craft proceeded to Dunkirk and thence up the Dunkirk Canal to Nieuport. Placed under the command of Rear-Admiral C. J. Eyres (Retired) in *Mary Rose*, this force was transferred in March to the First Army, to act under Sir Douglas Haig's orders. It then proceeded to Aire, the headquarters of the First Army, and here it waited for the opportunity which never came along. At the time of the attack on Neuve Chapelle that spring, it did seem as if this flotilla would be put to practical and valuable use, for had the British attack broken the enemy's line, it was intended to employ these four boats on the canal in a low-lying marshy district where field guns could have been moved only with difficulty.

Owing, however, to the fact that the Army was unable to advance, the usefulness of these craft had still to be demonstrated, and now the Gallipoli campaign having been started, there was need for their services at the eastern end of the Mediterranean. The four craft had been frequently under heavy gun fire while waiting inactive, but the small motor-boat tenders had been of great use to the naval officer in charge of the three 'horse-boats' which had been sent from Portsmouth by transport to Dunkirk and the Nieuport area, and carried a 4·7-inch gun apiece, daily shelling the enemy. These tenders became suitable for taking up supplies and ammunition to the horse-boats.

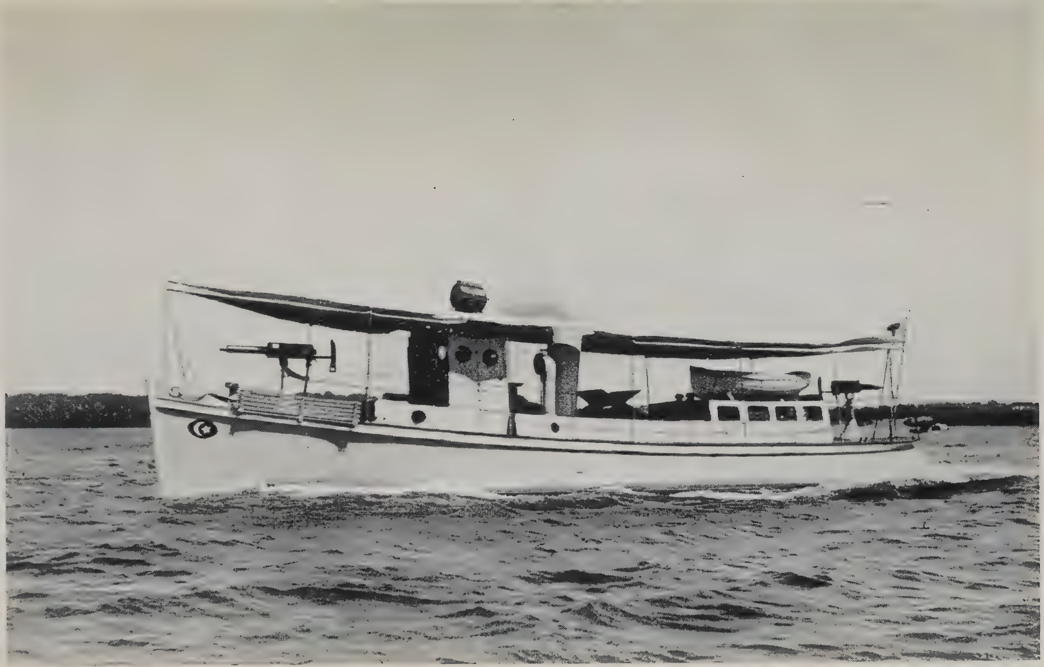
It was at the end of May that the Navy asked for the return of this flotilla, and they proceeded to Southampton to be refitted. No longer under Admiral Eyres, these four craft after being made ready for further service were destined to play an interesting part in the war. (See Appendix III.)

APPENDIX III

NOTE ON THE MOTOR GUNBOAT FLOTILLA IN THE EASTERN MEDITERRANEAN

Of the four armed motor-boats withdrawn from the continental waterways (see Appendix II.), *Mary Rose*, *Penelope*, and *Dorothea* were shipped aboard transports and thus reached Mudros during the summer of 1915. A motor-boat named the *Anzac* arrived from the Suez Canal, and the motor-boat *Oomala*, sent out by transport from England, was attached to the Consular Service in the Eastern Mediterranean for intelligence work.

This made five. The sixth was the motor-boat



‘DOROTHEA’

60 feet long, 15 feet beam, 140 horse power, speed 11 knots (as originally built for the Turkish Government, but used in the Auxiliary Patrol).

To face p. 312

California, which carried out a most interesting trip under her own power. After crossing the English Channel to Havre from Southampton, she proceeded up the Seine, through Rouen and Paris, and so by the French canal system right across France to Lyons. Thence down the rapid-running Rhône she reached St. Louis on the Mediterranean and Marseilles on the sixteenth day from Havre, a total distance of 877 miles between the English Channel and the Mediterranean. From Marseilles *California* went to Genoa, Leghorn, Naples, Messina, Malta, and thus reached Mudros, and these craft became the Motor Gunboat Flotilla, the senior officer being Commander Morton Smart, R.N.V.R., one of the founders of the R.N.M.B.R., who had been also with these craft when they were sent to Dunkirk and Nieuport.

The work carried out by this little motor flotilla from July, 1915, to September, 1916, is of such special interest that the following summary which has been kindly supplied to me by this officer is deserving of notice, both as an historical record and as affording data for the need of such craft in future years:

'When the flotilla arrived from Mudros to Iero they were given the duty of patrolling the north and south entrances to the harbour of Aivali, as there were persistent rumours that this harbour was being used as a submarine base. The two entrances were guarded by nets with mines and indicator buoys, and the gunboats' chief duty was to guard these nets night and day and to prevent any ships getting out of or in the harbour. *Mary Rose* was instructed to try to enter the south entrance one night, to take soundings, and to examine the nature of the obstruction at the harbour end of the channel of entrance. On proceeding up the narrow channel between the navigating buoys she was met by a very heavy rifle-fire from both sides. Fire was immediately opened by her 3-pounders on a house from which the flashes of rifles could be seen, and this had the effect of stopping the rifle-fire, and the gunboat was able to turn in the narrow channel and retire. She was hit in a number of places, but no material damage was done. At the north entrance, *Penelope* was lying at anchor early one morning, at a place where the gunboats had frequently anchored before, when she was heavily bombarded at a range of from seven to eight thousand yards. About fifty rounds were fired, many of the shots falling very close, and, although her boat with a crew was nearer the guns close to the nets, her commanding officer was able to get under way, close his boat, embark the crew, and retire to a position of safety without being hit. The gunboats frequently remained on constant day and night duty at these entrances, for periods of four to six days, before returning to Port Iero for a short spell off duty.

'This patrol lasted from August 1 till about the middle of September, when orders were received to proceed to the Gulf of Smyrna and patrol the entrance. There had been repeated rumours that sailing ships had been able to evade the outer patrol ships, and had succeeded in getting down the gulf. On my first visit to the gulf, it became very evident that much good work could be done by the motor gunboats if they were permanently stationed at Long Island, as the natural conditions, with the various islands acting as a protection from bad weather from all directions, made an ideal situation for the effective working of small craft. I therefore put forward the proposal to the senior naval officer, Smyrna Patrol, that the gunboats should remain in the gulf permanently and take possession of Long Island, and there form an advance base. After due consideration this proposal was agreed to, and towards the end of September *Mary Rose* and *Penelope* were sent to the Gulf to make all necessary arrangements for establishing a base. Although the gunboats were well equipped for the work expected of them, it was quite obvious that, stationed so far away as they were from Port Iero, the addition of wireless to the boats would very materially enhance their values, as the only means of communication was by visual touch with an occasional patrol ship. On making the proposal to the senior naval officer that I would undertake to carry out classes in wireless sending and receiving, if wireless gear could be obtained and fitted, this suggestion was agreed to, and for some weeks, pending the arrival of the apparatus, classes of instruction were held nearly every day until the officers became quite capable of sending and receiving at a fair speed. Great assistance was given by the wireless operators of the destroyers *Jedd* and *Kennet*, who never tired in helping us to carry out various experiments, and who constantly gave us practical demonstrations in the apparatus when occasions arose.

'The chief work carried out by the flotilla in the Smyrna Gulf during the first few months was as follows:

'1. Searching for submarines and bases.

'2. Keeping up an effective blockade.

'3. Giving assistance to refugees escaping from the Turkish coast.

'4. Controlling and administering the islands.

'5. Protecting the various minefields.

'6. Reporting on the movements of the enemy.

'7. Intelligence work.

‘SUBMARINES.

‘Every part of the whole of the coast of Long Island was systematically searched, and this was necessarily a gradual process, as in doing so the gunboats came within easy range of points on the Turkish coast, but no enemy fire was opened. Later the island of Kilsali and the small islands forming Vourla Roadstead were examined, but no traces of submarine bases were found.

‘The village of Nikola, situated at the south end of Long Island, was selected as a suitable place to form a base for the flotilla. A fine natural harbour was available, well protected from most winds; and the semi-ruined houses were transformed into storehouses and barracks, made for the ratings to sleep in when able to have an occasional night off duty.

‘A system of night and day patrols was established, and places like Vourla Harbour, the entrance of Smyrna Harbour at Pelican Spit, and the Gulf of Gieulbagche were visited in the hours of darkness, and it thus became fairly certain that any movement of vessels would soon be discovered. At first several sailing vessels were captured or chased back to Vourla, but it is extremely improbable that any unauthorized vessel has entered or left the Gulf of Smyrna during the past five months.

‘MINEFIELDS.

‘The minefields were carefully examined every day, and the mines, which could be easily seen on bright days, were located near the coast and passages for the gunboats marked out on the east and west sides of the island. Several mines which had come to the surface were sunk by gunfire. Before the attack by the monitors on the Smyrna defences began the gunboats took part in the blowing up of some of the mines so as to make a passage for the monitors, etc., down the east side of Long Island. This was done by locating a mine and dropping a charge of guncotton down on to the top of it and lighting the attached fuse, which allowed four minutes to get away.

‘Refugee Work.

‘During the first few months the gunboats took a very active part in bringing off from the Turkish mainland refugees of all nationalities; in all about three thousand were rescued. These refugees were taken to the village of Nikola and carefully guarded and examined, and then sent by drifter to the Vice-Consul at Mitylure, with a description of their name, age, occupation, and the place from which each had come.

‘It was essential that great care should be taken with these refugees, as it was obviously a good way for the enemy to send out spies. Quite a number of men who came out as refugees ultimately proved to be in the pay of the Turkish Government. The refugees who came out were well treated and fed by us, as many of them were in a deplorable condition of want. To prevent leakage of information and the importation of contraband into Turkey, which was undoubtedly going on, it became necessary to take over complete control of the islands and remove certain of the inhabitants. Approval was given, and all the inhabitants of Long Island were removed to Mitylure, except a number of suitable men who volunteered to remain behind as guards under military law.

‘PATROLS.

‘The gunboats have kept up constant day and night patrols, and in spite of a winter of heavy gales they have never been a single night off this duty. On many occasions, particularly during November, the conditions under which the gunboats on duty carried out this patrol were beyond description for discomfort owing to the constant quick rolling of the boats and the cold and wet in cramped quarters, and it speaks well for all concerned that this trying work was carried out cheerfully and effectively.

‘WORK OF GUNBOATS DURING OPERATIONS AGAINST SMYRNA DEFENCES.

‘During the time the *Raglan* and the other monitors were bombarding the Smyrna defences the motor gunboats did practically constant night and day duties, and it was seldom during this long spell that it was possible to allow anyone to have a whole night off duty. During this period they performed a variety of duties, amongst the most important being:

‘1. Wireless guard at north anchorage before the shore station was working.

‘2. Piloting ships through the minefields passages.

‘3. Acting as escorts to the ships when firing.

‘4. Making reconnaissances over by the Saltpans and at other suspicious positions.

‘5. Carrying out night patrols in the neighbourhood of the ships at anchor.

‘6. Standing by over at Smyrna when aeroplanes were flying so as to render aid if one had come down.

‘7. Attempting to draw fire from shore batteries.

‘On more than one occasion the gunboats succeeded in drawing fire from the shore, none of them being hit by shell-fire except *Anzac*, who had one shell pass through her dinghy which was on deck aft, and the fuse of another which passed through her side into her forecastle.

‘On the night of the first bombardment by the monitors, as it was considered that the enemy might try to come out from Smyrna to attempt to lay mines in the neighbourhood of the positions from which the monitors had been firing, *California* was sent with instructions to patrol near the entrance to Smyrna harbour during the night. On arriving near the Turkish coast two calcium lights attached to wooden floats were thrown overboard at intervals, and as soon as they commenced flashing they appeared like ships signalling, and *California* moving from point to point made answering signals. The idea was to make the enemy believe that we were laying mines, and it soon had the effect of making them put on all three searchlights, a sight we had never seen before during all the time we had been in the gulf. *California* was brilliantly lighted up by the rays of the searchlights concentrated on her, so she retired northwards. Later she proceeded to the neighbourhood of Pelican Spit, and trusting to not being seen against the land background, anchored between Fishery Spit and Pelican Spit, and spent the night watching the entrance of Smyrna Harbour by the light of the enemy’s searchlights, which remained on all night. Just before daylight anchor was weighed, and *California* returned with the certain knowledge that no ship had entered or left the harbour. In the neighbourhood of Mentessi Hills great activity of men and bullocks had been noticed from the outposts at Nikola. It became fairly certain, from careful watching, that gun-positions were being made, and that two houses in the village of Colytza were being used by the soldiers. One morning just before dawn *Mary Rose* and *Penelope* crept close round the foot of Mentessi No. 2 and opened fire at the two houses at a range of about 800 yards. Four 3-pounders were fired on the two houses, forty-seven rounds being fired and forty-six hits being registered. Many men were soon observed running in all directions. The firing lasted two and a half minutes, and the gunboats were retiring in three minutes from the first shot. Two days later intelligence reports were received from Vourla informing us that sixteen Turkish soldiers had been killed and several injured.

'On the night of April 9 the gunboats took part in the evacuation of Nikola Village, assisted by M. 30 and torpedo-boat *Usk*. The operation was carried out without a hitch, and all the large quantity of petrol, paraffin, and lubricating oil was successfully removed to the north, and as it was probable that the Mentessi batteries would shell the village, which, as a matter of fact, they did next morning.'

It should be added that *Dorothea* was destroyed by fire as early as July, 1915, so the flotilla for almost the entire period consisted of five craft. It is interesting and amusing to note that *Mary Rose* and *Penelope*, which had been built on behalf of the Turkish Government, were actually employed, owing to the fortunes of war, against the Turks.

On May 13, 1916, it will be remembered that the enemy sank the British monitor M. 30 in the Gulf of Smyrna. A flash was seen near Cape Aspero about ten o'clock that night, and shells began to fall round the monitor. Presently there was a loud explosion, the monitor became enveloped in flames, and before long was blazing so fiercely that the enemy guns were afforded an excellent target. The motor gunboat *California* then managed to get alongside the listing monitor, and was able to take off fifty survivors under a heavy fire, one shell actually severing the rope which secured the monitor to the motor gunboat.

But it was after the loss of this monitor that the evacuation of Long Island took place, and the motor gunboat flotilla was sent to the Straits of Chios, where they carried out work in connection with the blockade, capturing contraband and generally obtaining important intelligence. But at last this interesting and successful experiment of improvised ships was to come to an end. For, in September, 1916, orders came that six M.L.'s would shortly arrive, and that the motor gunboats with officers and men were to return to England.

It should be added that in every case the officers consisted of those holding temporary R.N.V.R. commissions, but the crews included a stiffening of marines, whose well-known discipline and excellent gunnery were invaluable to the efficiency of the flotilla.

APPENDIX IV

NOTE ON THE PASSAGE OF M.L.'S FROM PORTSMOUTH TO THE MEDITERRANEAN

THE interesting voyage of the motor gunboat *California* to the Mediterranean in 1915 was to be repeated by other craft two years later. The problem was that, although the newly built motor launches were much required in the Middle Sea owing to the extended activities of enemy submarines, there was such a heavy demand on the fast-dwindling number of transports that there was not always room for these craft as deck cargoes. Moreover, there was always a possibility that if the transport were torpedoed the motor craft would also be destroyed. In this manner the three motor-boats *Allegro*, *Doreen*, and *Griffin* were lost in September, 1916, when the *Achaia* was torpedoed off Oran. There were cases where the motor craft actually floated off the sinking transport and thus were saved. And there were other cases where the motor craft from the deck of the transport brought their guns into action and actually shelled enemy submarines, thus largely contributing to the escape of the transport.

The month of July, 1917, was the time when the shortage of shipping and the activities of the U-boats were already acute. A flotilla of eight motor launches was waiting at Portsmouth bound for the Mediterranean, and it was finally decided to send them out under their own power through the French canals and navigable rivers, Commander Smart, R.N.V.R., being again in command. The flotilla consisted of M.L.'s 438, 505, 432, 440, 516, 539, 535, and 530. Leaving Portsmouth on July 11, they reached Havre and Rouen. After various adventures peculiar to the waterways of France, and being compelled to endure trying delays, they reached Marseilles on the last day of the same month, not without damage to propellers owing to grounding or striking the lock sides or fouling submerged tree-branches.

Having been docked and repaired, M.L.'s 535 and 505 proceeded under their own power to Gibraltar, having left on the night of August 8 and arriving on the evening of August 11. This was no mean achievement, for it involved a run of about 700 miles with no intervening friendly port in which to run in case of necessity. They were escorted by H.M.S. *Marguerite.* The other six M.L.'s after their repairs left Marseilles and proceeded on August 19 via Villefranche, Genoa, Spezzia, Leghorn, Civita Vecchia, Naples, Policastro, Messina; here M.L.'s 438 and 432 parted company on their way to Malta. The other four reached Taranto on September 3, in twenty-six actual steaming days from Portsmouth, a distance of 2,246 miles.

The work performed by the craft based on the Otranto Straits is dealt with in another place, but it has been thought well to set down here these interesting details of the passage out, as showing the multifarious achievements of small craft during the war. It should be mentioned that all officers were not professional but amateur seamen, and fairly heavy seas were encountered in the Mediterranean, the craft themselves being built of wood, their length over all being eighty feet. (See Chapter X.)

INDEX

***** The names of ships belonging to the Auxiliary Patrol are in heavy-faced type.**

ABBREVIATIONS: *cr.* = cruiser; *dr.* = drifter; *f.* = fishing (trawler, etc.); *hosp.* = hospital ship; *m.b.* = motor-boat; *pdl.* = paddle-boat; *tr.* = trawler; *transp.* = transport; *wh.* = whaler; *yt.* = yacht; *Belg.* = Belgian; *Eg.* = Egyptian; *Fr.* = French; *Ger.* = German; *It.* = Italian.

Abbas, *Eg. cr.*, 174
Aboukir, *H.M.S.*, 20
Acceptable, *dr.*, 169, 248
Achaia, *transp.*, 322
Achievable, *dr.*, 32
Adjutant, *Ger.*, 143
Admirable, *dr.*, 207
Ægusa, *yt.*, 171
Ajax II., *dr.*, 167
Albatross, *Ger. cr.*, 28, 30, 309-10
Albyn, *pdl.*, 241
Alexandre Delcommune, *Bel.*, 132-3
Allegro, *m.b.*, 322
Allerton, Skipper, 56
Alleyne, Sir J. M., Lieutenant, R.N., 292
Amalthea, *yt.*, 219
Amethyst, *H.M.S.*, 74
Amiral Ganteaume, *S.S.*, 35
Amphion, *H.M.S.*, 14-15
Angelo, *f. tr.*, 94
Angus, Skipper C., 154
Anzac, *m.b.*, 312, 319
Arab, *H.M.S.*, 219
Arabic, *S.S.*, 96, 114
Ariel, *H.M.S.*, 35, 68-9
Arnauld de la Périère, 129, 130
Arndale, *S.S.*, 112
Arndilly Castle, *dr.*, 259
Asquith, Claude, Lieutenant, R.N.R., 154-5
Astrum Spei, *dr.*, 157
Atalanta, *S.S.*, 83
Attentive, *H.M.S.*, 34, 230, 279-80, 287
Audacious, *H.M.S.*, 45-6
Au Fait, *dr.*, 256
Avondale, *dr.*, 207
Ayesha, 211
Azarael, *dr.*, 259

Babcock, Commander, U.S.N., 214
Bacchante, *yt.*, 59
Bacon, Admiral R. H., 84, 114, 115, 117, 146, 251, 274
Badger, *H.M.S.*, 35
Ballard, Admiral, 25, 34, 43, 51
Ballard, Skipper James, 240, 241
Baltimore, *U.S.S.*, 205
Banyers, *tr.*, 56
Barbados, *tr.*, 85-7
Barker, Skipper R. W., 25
Barlow, Admiral, 54, 63
Bartenbach, Captain, 182
Bayly, Admiral Sir Lewis, 90, 274
Beatty, Admiral, Lord, 306
Bega, *tr.*, 218
Begonia, *dr.*, 201, 259
Bell, J. S., Lieutenant, R.N.V.R., 273
Ben Bui, *dr.*, 157
Ben Cruachan, *S.S.*, 60
Benn, I. H., Commander, R.N.V.R., 287
Bennett, Skipper H., 199
Beresford, Admiral Lord Charles, 12
Berlin, *Ger.*, 45
Bernays, L. A., Commander, R.N., 112
Berry, Chief Skipper A. E., 78, 198-9
Beryl, *yt.*, 233-4
Beryl III., *dr.*, 258
Bethmann-Hollweg, 114
Bien Venue, *dr.*, 298
Biermann, Commander, 14
Bircham, Lieutenant, R.N.V.R., 39
Birmingham, *H.M.S.*, 17

Blanche, S.S., 60
Bluebell, *tr.*, 88
Bon Espoir, *dr.*, 127
Bond, Skipper C. C., 90
Boothby, H., Lieutenant, R.N.R., 52, 56
Bourke, R., Lieutenant, R.N.V.R., 286-7, 292
Boutefeu, Fr. destroyer, 208
Bowen, G., Lieutenant, 282
Boy Harold, *dr.*, 129
Boyle, Commander, 279
Boynton, Second Hand A., 199
Bradford, *tr.*, 88
Brand, G., Lieutenant, R.N.R., 244
Bray, H. J., Lieutenant, R.N.R., 151
Bremse, Ger. cr., 221
Brighton Queen, *pdl.*, 33, 52, 102
Brilliant, H.M.S., 278, 286-7, 289
Bristol, H.M.S., 208
Briton, *tr.*, 113
Brock, *tr.*, 88
Broke, H.M.S., 189-90, 197, 215
Bruce, Skipper W., 157-8
Brummer, Ger. cr., 221
Bullock, Skipper J. H., 258
Burgon, C. S., Lieutenant, R.N.R., 240, 241
Bury, Engineer Lieutenant-Commander, 291

C 3, *H.M. Submarine*, 280
Calceolaria, *dr.*, 301
California, *m.b.*, 311, 313, 319, 321
Calistoga, *dr.*, 131-2
Calvia, *tr.*, 298-9
Cambank, S.S., 66
Cameo, *tr.*, 112-13
Candidate, S.S., 89
Canopus, H.M.S., 73
Cape Colony, *dr.*, 180
Capelle, Admiral von, 17, 182
Capricornus, f. tr., 309
Carden, Admiral, 70
Carruthers, Lieutenant, R.N.V.R., 215
Carthage, Fr. transp., 80
Catania, *yt.*, 160
Cattistock, *pdl.*, 241
Centurion, S.S., 89
Chappell, L. S., Lieutenant-Commander, R.N.V.R., 283
Charlton, Rear-Admiral E. F. B., 33, 43
Château Renault, Fr. cr., 245
Chikara, *tr.*, 240
Chirsit, *tr.*, 85-7
Christabel, *yt.*, 295
Christie, Second Hand David, R.N.R., 267, 270
Christina Craig, *dr.*, 201
Christopher Wren, *pdl.*, 173
Chrysanthemum, *dr.*, 201
Citta di Palermo, It. transp., 126
City of Belfast, f. dr., 31
Clacton Belle, *pdl.*, 84
Clavis, *dr.*, 157
Clover Bank, *dr.*, 256
Clover Bank II., *dr.*, 200, 256-7
Coastal Motor Boat 5, 276 ; **22**, 293
Cochrane, Mr. (owner of *Westward*), 152
Coleus, *dr.*, 300
Colleague, *tr.*, 197
Columbia, *tr.*, 84, 85
Commander Fullerton, *tr.*, 222-3
Commander Nasmith, *tr.*, 299
Comrades, *dr.*, 147
Comrie Castle, S.S., 260
Conqueror, *yt.*, 171
Conyngham, U.S.S., 215
Coral Haven, *dr.*, 207
Cordova, S.S., 223
Coreopsis, *dr.*, 265-70
Cornwallis, H.M.S., 74, 78
Cosmos, *dr.*, 200, 201
Cossack, H.M.S., 66
County of Nairn, *dr.*, 298
Courage, *dr.*, 201
Cowie, Skipper John, 110
Crafter, R. A., Lieutenant, R.N.R., 202
Craigbo, *dr.*, 158-9
Craignoon, *dr.*, 207
Cressy, H.M.S., 20
Crisp, Skipper T., 185, 236-8
Crisp, T. W., 237-8
Crossley, C. V., Lieutenant, R.N.R., 52
Croucher, W. S., Lieutenant, R.N.R., 299
Crownsin, *tr.*, 98
Crutchley, V., Lieutenant, R.N., 291

D.H.S., *dr.*, 163
Daffodil, H.M.S., 276-80
Daisy VI., *dr.*, 2
Dare, Admiral C. H., 63, 64, 97
Dartmouth, H.M.S., 208
Datum, *dr.*, 166
Davis, U.S.S., 215
Deakin, H. H., Sub-Lieutenant, R.N.R., 127, 128

Dean, P. T., Lieutenant, R.N.V.R., 282, 284-5
Devonia, *pdl.*, 33
Dixon, J., Lieutenant, R.N.R., 185
Domville, Lieutenant Sir James, 84-5
Doreen, *m.b.*, 322
Doris, H.M.S., 78
Dorothea, *m.b.*, 311-12, 320
Dorothy Gray, *tr.*, 37, 50
Dovey, *f. tr.*, 93
Dreadnought, *H.M.S.*, 83
Drummond, G. H., Lieutenant, R.N.V.R., 291
Dublin, *H.M.S.*, 124
Duchess of Hamilton, *pdl.*, 102
Dudley, A., Sub-Lieutenant, R.N.V.R., 136, 139, 142
Dulcie Doris, *dr.*, 131-2
Durward, *S.S.*, 60

E.B.C., *dr.*, 167
E.E.S., *dr.*, 120
Eager, *dr.*, 56
Earl Kitchener, *tr.*, 175
Earl of Lathom, 89
East Anglia, *dr.*, 301
East Holme, *dr.*, 167, 301
Eastward Ho ! *tr.*, 112-13
Edeling, Lieut.-Commander, 250
Edmund Ironside, *pdl.*, 173
Eileen, *yt.*, 54, 88
Eli, *S.S.*, 55
Elsie, *tr.*, 220
Emden, *Ger.*, 211
Emden [*II.*], *Ger.*, 221, 224, 256
Endurance, *dr.*, 147
Enterprise II., *dr.*, 129
Era, *tr.*, 154-5
Escallonia, *tr.*, 78
Eskburn, *dr.*, 167
Ethel and Millie, *armed smack*, 238
Evans, E. R. G. R., Commander, R.N., 189, 215
Evans, Skipper, 55
Evening Star, *yt.*, 54
Evening Star, *dr.*, 125
Evening Star II., *dr.*, 131-2
Ewing, Engineman J., 201
Eyres, Admiral C. J., 311
Eyrie, *dr.*, 32

Fanning, *U.S.S.* 246
Faulknor, *H.M.S.*, 290
Feasible, *dr.*, 248-50
Felicitas, *dr.*, 127, 207
Ferguson, H. S., Lieutenant, R.N.R., 109-10
Fertility, *dr.*, 301
Fifi, *H.M.S.* (formerly *Kingani*), 142
Fikentscher, Lieut.-Commander, 255
Finross, *dr.*, 162
Fisher Girl, *dr.*, 162-3
Fisher, Lord, 13
FitzGerald, W. F., Lieutenant, R.N.R., 169
Flavian, *f. tr.*, 309
Flirt, *H.M.S.*, 166-7
Floandi, *dr.*, 127
Florio, *tr.*, 300
Formidable, *H.M.S.*, 39
Frascati, *tr.*, 78
Fraser, N., Lieutenant, R.N.R., 202
Frigate Bird, *dr.*, 157
Fry, H. C. C., Lieutenant, R.N.R., 125, 127
Fuji, *tr.*, 261

G. and E. See **Nelson**
G. Y. 750, 309
Gallier, *S.S.*, 56
Garmo, *tr.*, 54
Garnett, Stuart, Lieut.-Commander, R.N.R. 51, 84
Garrigil, *dr.*, 128, 158
Garry, *H.M.S.*, 37
Gartside-Tipping, H. T., Commander R.N., 115
Gavenwood, *dr.*, 128
Gayer, Captain, 17, 35, 59, etc
Gem, *S.S.*, 55
Gipsy, *H.M.S.*, 250-1
Girl Gracie, *dr.*, 207
Girl Norah, *dr.*, 167
Girl Rose, *dr.*, 207
Gleaner of the Sea, *dr.*, 118-20, 166
Glitra, *S.S.*, 35
Godsal, A. E., Commander, R.N., 291
Goette, Admiral, 255
Golden Effort, *dr.*, 88
Golden Gain, *dr.*, 200, 298
Golden Rule, *dr.*, 200
Gossamer, *H.M. Mine-sweeper*, 53
Gotzen. See *Graf von Gotzen*
Gowan II., *dr.*, 259
Gowan Lee, *dr.*, 170
Graf von Gotzen, *Ger.*, 137, 142-4

Gray, F. W., Lieutenant, R.N.R., 240-1
Greif, Ger., 8
Greypoint, S.S., 188-9
Griffin, *m.b.*, 322
Groos, Korvetten-Kapitan O., 8, 305
Guerdon, *dr.*, 163
Gull, *tr.*, 109
Gurkha, H.M.S., 66-7
Gwynne, A. C., Commander, R.N., 192

H. E. Stroud, *tr.*, 166, 168
Halcyon, H.M.S., 33
Hallett, Petty Officer, 87
Hamburg, Ger., 93-4, 309
Hampshire, H.M.S., 148
Hardy, H.M.S., 52
Harrier, f. tr., 310
Harvest Hope, *dr.*, 261, 298
Hastings Castle, *dr.*, 127
Hawk, *tr.*, 109-10
Hawke, H.M.S., 34
Hawthorn, Lieutenant-Commander, R.N.R., 83, 85, 87
Hedwig von Wissmann, Ger., 133-4, 138, 142-3
Helenora, *dr.*, 207
Hemp, Skipper E., 251
Hermes, H.M.S., 35
Hermione, H.M.S., 104
Herring Seeker, *dr.*, 261, 298
Hersilia, *yt.*, 171
Hersing, Lieutenant-Commander, 17-20, 37-8, 59, 79-80, 187
Hilda and Ernest, *dr.*, 56
Hipper, Admiral von, 226-7
Hoare, K. R., Lieutenant, R.N.V.R., 287
Hogue, H.M.S., 20
Holtzendorff, Admiral von, 3
Hood, Admiral, 41, 43, 84
Horn, Lieutenant, 132-3
Hurren, Skipper R. G., 119-20
Hyacinth, *dr.*, 116

I.F.S., *dr.*, 167
I'll try. See **Nelson.**
Indian, f. tr., 309
Indian Empire, *tr.*, 88, 89
Inglefield, Admiral Sir F. S., 25, 102
Intrepid, H.M.S., 278, 282, 284
Intrepido, It. destroyer, 125
Inverbervie, transp., 160
Invincible, H.M.S., 19
Iphigenia, H.M.S., 278, 283-5
Iris, H.M.S., 276-80, 283

J. Burn, *dr.*, 301
Jaboo II., *tr.*, 259
Jacinth, *tr.*, 240
James Fletcher, *yt.*, 301
James Pond, *tr.*, 197-9, 203
Jan Breydel, hosp., 167
Janus, H.M. Trawler, 13
Jason, H.M. Mine-sweeper, 53
Jasper, H.M. Trawler, 13
Javelin, H.M. Trawler, 13
Jeannette, *yt.*, 59, 63
Jeannie Murray, *dr.*, 200
Jedd, H.M.S., 315
Jellicoe, Admiral, 21, 48, 50, 274
John Brooker, *tr.*, 300
John Gillman, *tr.*, 300
John High, *tr.*, 156
John Lincoln, *dr.*, 188
John Pasco, *tr.*, 259
Jones, E., Engineer Lieutenant, R.N.R., 296
Julian, f. tr., 309
Jung, Sub-Lieutenant S., 141
Justicia, S.S., 298

Kempton, *pdl.*, 219
Kennet, H.M.S., 315
Kersley, L. W., Sub-Lieutenant, R.N.R., 85
Kessingland, *dr.*, 261, 298
Keyes, Rear-Admiral Roger, 274, 285 290, 303
Kimberley, *tr.*, 151-2
King, C., Lieutenant, R.N.R., 241
King Edward VII., H.M.S., 95
Kingani, Ger., 137-43
Kippins, T., Lieutenant, R.N.R., 264
Kitchener, Lord, 148
Kitson, J. F. B., Lieutenant, R.N.V.R., 252
Kitty George, *dr.*, 172
Knight, Lieutenant, R.N.R., 158
Koch, Admiral, 3
Kolberg, Ger., 57
Königin Luise, Ger., 13-15
Königsberg, Ger., 137, 143
Königsberg [*II.*], *Ger.*, 255
Krech, Lieut.-Commander, 268-9

L 45, 172
Laforey, H.M.S., 189
Lane, Skipper T., 251
Laroone, *tr.*, 197
Launch Out, *dr.*, 167
Laverock, H.M.S., 187-8
Le Marchant, Rear-Admiral E. R., 63, 97
Leopard, Ger., 8
Lettow, Colonel von, 137
Lewis Reeves, *tr.*, 268
Lily Reiach, *dr.*, 127-9
Limewold, *tr.*, 90-1, 109-10
Linda, S.S., 60
Lingfield, H.M.S., 197, 198
Linsdell, *dr.*, 32
Littleton, H. A., Lieutenant, R.N.V.R., 282
Livingstone, *tr.*, 222-3
Livingstone, D., Lieutenant, R.N.R., 201-2
Llewellyn, H.M.S., 189
Lloyd, C. H., Sub-Lieutenant, R.N., 285
Lobelia, f. tr., 310
Lord Alverstone, *tr.*, 222-3
Lord Clive, H.M.S., 292
Lord Leitrim, *dr.*, 261
Lorna, *yt.*, 295
Lottie Leask, *dr.*, 125, 128
Lowry, Admiral, 68
Loyal Friend, *dr.*, 261, 298
Ludlow, *pdl.*, 172
Lusitania, S.S., 58, 88, 90, 96
Lynes, Commander, 290

M. See *Monitor*.
M.L. 1, 103; **M.L. 2**, 103; **M.L. 3**, 103; **M.L. 12**, 197, 203; **M.L. 38**, 175; **M.L. 103**, 166; **M.L. 110**, 282; **M.L. 128**, 282-3; **M.L. 155**, 302; **M.L. 168**, 272; **M.L. 181**, 214; **M.L. 190**, 272; **M.L. 252**, 166; **M.L. 254**, 291-3; **M.L. 272**, 197; **M.L. 276**, 286-8, 292; **M.L. 282**, 282-4; **M.L. 283**, 287-8; **M.L. 308**, 283; **M.L. 357**, 251-2; **M.L. 373**, 202; **M.L. 413**, 272; **M.L. 424**, 283; **M.L. 432**, 322-3; **M.L. 438**, 322-3; **M.L. 440**, 322-3; **M.L. 505**, 322; **M.L. 516**, 322-3; **M.L. 526**, 282-3; **M.L. 530**, 322-3; **M.L. 532**, 287-9; **M.L. 535**, 322; **M.L. 539**, 322-3; **M.L. 558**, 283; **M.L. 561**, 304
McClory, J. M., Lieutenant, R.N.R., 168
McDougal, U.S.S., 215
Mackintosh, W. R., Lieutenant, R.N.R., 172
M'Loughlin, J., Lieutenant, R.N.R., 147
Mainz (*Ger.*), 310
Majestic, H.M.S., 80
Majesty, *dr.*, 248-51
Malachite, S.S., 37
Manchester Commerce, 46
Manx Hero, *tr.*, 72
Manzanita, *dr.*, 125
Maori, H.M.S., 67
Maraschiaro, 127
Marguerite, H.M.S., 323
Marksman, H.M.S., 196, 256
Marnay, f. tr., 309
Martin, H.M.S., 212
Mary, *tr.*, 48
Mary Rose, H.M.S., 220-1
Mary Rose, *m.b.*, 311-15, 320
Marynthea, *yt.*, 63
Massey, W. T., 174
Mauretania, H.M.T., 81
Maxwell, General Sir J., 173
Mayfair, *m.b.*, 40
Medusa, *yt.*, 63
Mekong, *yt.*, 171
Meror, *tr.*, 248
Mersey, f. tr., 310
Meteor, Ger., 8, 95, 110
Michaelmas Daisy, *dr.*, 161
Mill o' Buckie, *dr.*, 127
Mimi, *m.b.*, 134-43
Mingary, *yt.*, 152
Miranda, *yt.*, 59, 300
Mishe Nahma, *dr.*, 167
Miura, *tr.*, 85-7
Moltke, Ger., 227
Monada, *dr.*, 300
Mona's Isle, *pdl.*, 102
Monitor 15, 244; *M. 21*, 304; *M. 26*, 194, 197, 256; *M. 30*, 320
Monsone, *tr.*, 127
Moravia, *tr.*, 243
Möwe, Ger., 95, 147
Möwe [*II.*], *Ger.*, 132-3

Narcissus, *yt.*, 59, 63, 242
Nautilus, Ger., 28, 310
Nellie Nutten, *tr.*, 154-5
Nelson, *armed smack*, 236-8

Nepaulin, *pdl.*, 215
Newbury, H.M.S., 197, 198
New York, S.S., 214
Nicholson, Rear-Admiral, 48
Niger, H.M.S., 35
Night Hawk, *tr.*, 55
Nine Sisters, *dr.*, 39
Noble, Engineman A., 201
North Star, H.M.S., 286
Nubian, H.M.S., 168
Nur El Bahr, Eg., 174

Oberon II., *dr.*, 127
Ocean Comrade, *dr.*, 39
Ocean Roamer, *dr.*, 261, 298
Oceanic II., *tr.*, 109-10
Okino, *tr.*, 77
Oku, *tr.*, 151-2
Oldenburg, Ger., 227
Olivine, *tr.*, 172
Olympic, S.S., 83
Ombra, *yt.*, 166-8
Onward, *tr.*, 154-5
Oomala, *m.b.*, 312
Opossum, H.M.S., 299
Orcana, f. tr., 55
Orianda, *tr.*, 52
Our Allies, *dr.*, 127, 170

P. 50, H.M.S., 197
P. Fannon, *wh.*, 220
Paget, Admiral Sir Alfred, 54
Paget, F., Lieutenant, R.N.V.R., 272
Paradox, *dr.*, 166
Paragon, H.M.S., 189
Paramount, *dr.*, 188, 248-51
Paris, *mine-layer*, 230
Parsons, G. C., Lieutenant, R.N., 52
Partridge, H.M.S., 222-3
Passing, *tr.*, 52
Pathfinder, H.M.S., 19
Peat, P. S., Lieutenant, R.N.R., 265-70
Peck, A., Commander, R.N., 189
Pellew, H.M.S., 222-3
Penelope, *m.b.*, 311-5, 320
Persius, Captain, 60
Petrie, Sub-Lieutenant, 292
Pfundheller, Captain, 45
Pilot Me, *dr.*, 262, 264
Pilot Whale, *wh.*, 219
Pleasance, *dr.*, 147
Pleasants, *dr.*, 167, 301
Pleiades, *dr.*, 147
Ploughboy, *dr.*, 127
Plumpton, *pdl.*, 303
Pohl, Admiral von, 60, 96
Porter, U.S.S., 215
Present Help, *dr.*, 248-51
Prime, *dr.*, 127
Primevere, *dr.*, 127
Primo, S.S., 38
Prince Eugene, H.M.S., 293
Princess Louise, *tr.*, 100
Prior, T. J., 116
Privet, Q-ship, 302

Quarry Knowe, *dr.*, 157-8, 207

R.R.S., *dr.*, 60, 189
R. Mackay, *dr.*, 259
Racehorse, H.M.S., 197
Raglan, H.M.S., 318
Ray, E. M., Lieutenant, R.N.R., 127
Re Umberto, It. transp., 125
Reality, *dr.*, 260
Recruit, H.M.S., 88
Redcar, *pdl.*, 219
Redwald, *dr.*, 188
Regain, *dr.*, 259
Resource, H.M.S., 104
Restore, *dr.*, 124
Rhine, f. tr., 309
Richardson, J. P. A., Lieutenant, R.N.V.R., 260
Robeck, Admiral de, 25, 81
Robert Betson, *tr.*, 259
Robinson, F. W. Lieut.-Commander, R.N.R., 251
Robinson, J. W., Lieutenant, R.N.V.R., 283
Robinson, O., Lieutenant, R.N.V.R., 283
Robur, *dr.*, 66
Roburn, *dr.*, 167
Rodino, *tr.*, 151-2
Rohilla, hosp., 50
Rollinson, John, 55
Rosabelle, *yt.*, 59
Rosenthal, Lieutenant, 138
Rosies, *dr.*, 158
Ross, Gordon, Lieutenant, R.N.V.R., 291
Rostock, Ger., 308
Royal Edward, H.M.T., 81
Russell, H.M.S., 98

Sabreur, *tr.*, 189, 197
Sage, Skipper A. H., 162
Sagitta, *yt.*, 43, 84, 114
St. Germain, *tr.*, 300
Salmon, *m.b.*, 152
Sanda, *yt.*, 115
Sandison, Engineman A., 199
Sapphire, *yt.*, 59, 63
Sappho, H.M.S., 289
Sarah Alice, *tr.*, 171
Sarba, *tr.*, 88
Saunders, R., Lieutenant, R.N.V.R., 283
Sawyer, H. T., Lieutenant, R.N.R., 152
Sayers, Skipper Albert, 113
Scania, *dr.*, 300
Scarlett, Skipper L., 116
Scheer, Admiral, 56, 61, 150, 182, etc.
Schoenfeld, Commander, 139
Schröder, Admiral von, 236
Schulze, Korvetten-Kapitan E. E., 4, 35, 36, 61, 105, etc.
Schweiger, Lieut.-Commander, 66, 88
Scott, Skipper R., 189
Sea King, *tr.*, 218
Seaflower, *dr.*, 270
Searanger, *tr.*, 112, 151-2
Sedulous, *dr.*, 39
Seeadler, *Ger.*, 8
Selby, *dr.*, 207
Selina, *dr.*, 127
Senior, W. A., Sub-Lieutenant, R.N.R., 55
Serene, *dr.*, 207
Seti, *f. tr.*, 310
Shipmates, *dr.*, 198, 270
Silver Queen, *dr.*, 201
Sims, Rear-Admiral, 214
Sirius, H.M.S., 278, 286-8
Skipjack, H.M. Mine-sweeper, 53
Skirbeck, *f. tr.*, 309
Skirmisher, H.M.S., 51
Smart, Morton, Commander, R.N.V.R., 313, 322
Snowline, Skipper E. V., 56
Solon, *tr.*, 56
Sophron, *tr.*, 241
South Tyne, *dr.*, 167
Spanker, H.M.S., 33
Sparrow, *tr.*, 300
Speedy, H.M.S., 32
Spicer-Simson, G., Commander, R.N., 138-9
Spotless Prince, *dr.*, 166
Sprenger, Lieut.-Commander, 211-12
Stableford, A. Sub-Lieutenant, R.N.R., 85
Star of Britain, *tr.*, 52
Stately, *dr.*, 147
Staunch, H.M.S., 244
Strassburg, *Ger.*, 308-9
Strongbow, H.M.S., 220
Stubbs, Skipper, 268-70
Stuttgart, *Ger.*, 309
Sunnyside, *dr.*, 127
Sunshine, *dr.*, 246
Sussex, S.S., 8, 145
Sutton, Skipper W., 163
Swain, Skipper Alfred, 78
Swallow, *tr.*, 185
Swift, H.M.S., 189-90, 196, 197
Szent Istvan, Austrian, 211

Taits, *dr.*, 207
Tara, *boarding steamer*, 174
Tebbenjohanns, Commander, 233
Terror, H.M.S., 230
Tessie, *dr.*, 198
Thetis, H.M.S., 278-84, 286
Thomas Young, *tr.*, 240
Tirpitz, Admiral von, 59
Tokio, *tr.*, 37-8, 222-3
Totnes, *pdl.*, 172
Tottenham, C. L., Lieutenant, R.N.R. 295-6
Toutou, *m.b.*, 134-43
Transit, *dr.*, 207
Treasure, *dr.*, 200
Trendall, Skipper T. W., 56
Triad, *yt.*, 81
Triumph, H.M.S., 80
Tuscania, S.S., 261
Tyrwhitt, Admiral, 21, 273

U 5, 17, 18, 309; *U 6*, 17, 131; *U 7*, 17; *U 8*, 17, 66-7; *U 9*, 17, 20; *U 10*, 118; *U 11*, 35; *U 12*, 35, 68; *U 13*, 17; *U 14*, 17, 109-10; *U 15*, 17; *U 16*, 17, 69, 309; *U 17*, 17, 34, 309; *U 18*, 17, 34, 37; *U 19*, 18, 35, 60, 94, 108; *U 20*, 66, 68, 90, (*Austrian*) 163, 169; *U 21*, 17, 18, 19, 37, 59-60, 79-80, 187; *U 22*, 18; *U 23*, 100, 108; *U 24*, 18, 39, 59; *U 25*, 18, 94, 108; *U 26*, 147; *U 27*, 66; *U 29*, 83; *U 30*, 66; *U 32*, 79; *U 33*, 79, 80; *U 34*, 80, 83, 302; *U 35*, 80, 83; *U 36*, 80;

U 38, 80 ; *U 39*, 80, 91 ; *U 46*, 155, 243 ; *U 47*, 213 ; *U 48*, 247-51 ; *U 49*, 155, 217, 243 ; *U 52*, 155 ; *U 54*, 182 ; *U 58*, 246 ; *U 65*, 213 ; *U 69*, 155 ; *U 72*, 213 ; *U 73*, 213 ; *U 74*, 150-1 ; *U 75*, 148 ; *U 76*, 180 ; *U 88*, 90 ; *U 109*, 202, 258 ; *U 157*, 304
UB 1, 80 ; *UB 3*, 80, 118-20, 166 ; *UB 4*, 97 ; *UB 6*, 87, 108 ; *UB 7*, 80 ; *UB 8*, 80 ; *UB 10*, 36, 109 ; *UB 11*, 304 ; *UB 14*, 80 ; *UB 15*, 80 ; *UB 17*, 259 ; *UB 30*, 300 ; *UB 31*, 294 ; *UB 33*, 261 ; *UB 35*, 202 ; *UB 38*, 202, 258-9 ; *UB 44*, 158 ; *UB 48*, 213 ; *UB 53*, 211-2 ; *UB 55*, 270 ; *UB 56*, 193, 202 ; *UB 58*, 259, 295 ; *UB 71*, 273 ; *UB 74*, 295 ; *UB 75*, 251 ; *UB 81*, 193 ; *UB 82*, 262 ; *UB 85*, 265-9 ; *UB 103*, 301 ; *UB 107*, 298 ; *UB 109*, 300 ; *UB 110*, 227 ; *UB 129*, 213
UC 5, 118 ; *UC 10*, 118, 153 ; *UC 11*, 108 ; *UC 12*, 80 ; *UC 13*, 80 ; *UC 14*, 80 ; *UC 15*, 80 ; *UC 17*, 183 ; *UC 25*, 213 ; *UC 34*, 213 ; *UC 35*, 162, 169 ; *UC 38*, 244-5 ; *UC 41*, 240 ; *UC 42*, 242 ; *UC 44*, 233 ; *UC 49*, 296 ; *UC 50*, 202 ; *UC 53*, 213 ; *UC 54*, 213 ; *UC 55*, 243 ; *UC 61*, 232 ; *UC 64*, 298 ; *UC 65*, 186 ; *UC 66*, 218 ; *UC 75*, 227 ; *UC 77*, 298 ; *UC 78*, 294
Union, *dr.*, 127
Usk, H.M.S., 320

V 154, Ger. torpedo boat, 310 ; *V 155*, 310 ; *V 158*, 309 ; *V 160*, 309
Vaaren, Norwegian, 51
Valiant, *yt.*, 53, 54, 63
Valiant, f. tr., 310
Valorous, *dr.*, 267-8
Vanduara, *yt.*, 60
Vaterland, Ger., 298
Vedette, Belg. m.b., 139
Venetia, *yt.*, 21, 22
Vengeur, Belg., 137
Veracity, *dr.*, 198
Viernoe, *tr.*, 197
Vigilant, *tr.*, 109
Viking, H.M.S., 66
Vindictive, H.M.S., 276-83, 289-93, 304
Viola, *tr.*, 300
Violet May, *dr.*, 200-1
Volckner ('war-pilot'), 69

W. Elliott, *dr.*, 198
Wadsworth, U.S.S., 215
Wainwright, A. E., Lieutenant, R.N.V.R., 136
Wainwright, U.S.S., 215
Walker, Skipper A., 262, 264
Walrus, f. tr., 309
Wami, Ger., 143-4
Warspite, H.M.S., 152
Warter Priory, *tr.*, 299
Warwick, H.M.S., 285, 290, 292-3
Waveney, *dr.*, 166-7
Webster, D. T., Lieutenant, R.N.R., 256-7
Weddigen, Commander, 20, 83
Wegener, Lieut.-Commander, 66
Welcome Star, *dr.*, 147
West, E. T., Sub-Lieutenant, R.N.V.R., 152
Wharton, Skipper W. S., 185
Whirlwind, H.M.S., 282
Wigtoft, f. tr., 309
William Symons, *tr.*, 268
Wilson, Sir A. K., 39
Wimple, *tr.*, 259
Wishful, *dr.*, 32
Wissmann. See *Hedwig von Wissmann*
Wolf, Ger., 8
Wright, J. C. K., Lieutenant, R.N.V.R., 285
Wylie, Skipper T. C., 147

Young, Commodore Sir F. W., 286
Young, Lieut.-Commander, R.N.V.R. 282
Young Crow, *dr.*, 167, 301
Young Fisherman, *dr.*, 39
Young Fred, *dr.*, 262, 264
Young Linnet, *dr.*, 207
Youngson, Skipper A., 37, 38

Zaida, *yt.*, 172
Zarefah, *yt.*, 22-3, 43, 51, 84
Zimmer, Captain G., 137-44
Zubian, H.M.S., 168, 196
Zulu, H.M.S., 168

PRINTED IN GREAT BRITAIN BY BILLING AND SONS, LTD., GUILDFORD AND ESHER

DATE DUE

DEC - 8 1969			
CAT. No. 1137			

LIBRARY
MAY
1
1981

PLEASE DO NOT REMOVE
CARDS OR SLIPS FROM THIS POCKET

UNIVERSITY OF TORONTO LIBRARY

D
581
C45

Chatterton, E. Keble
The auxiliary patrol

UTL AT DOWNSVIEW
D RANGE BAY SHLF POS ITEM C
39 16 19 14 06 011 1